

# **Samsung Security Manager**

## **User Manual**

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# overview

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## INTRODUCTION ON SAMSUNG SECURITY MANAGER

Samsung Security Manager is an application software that enables the accessing and controlling Samsung's network devices from a remote PC.

Using this program, you may access and control your network devices via the Internet from anywhere, as well as monitoring connected camera.

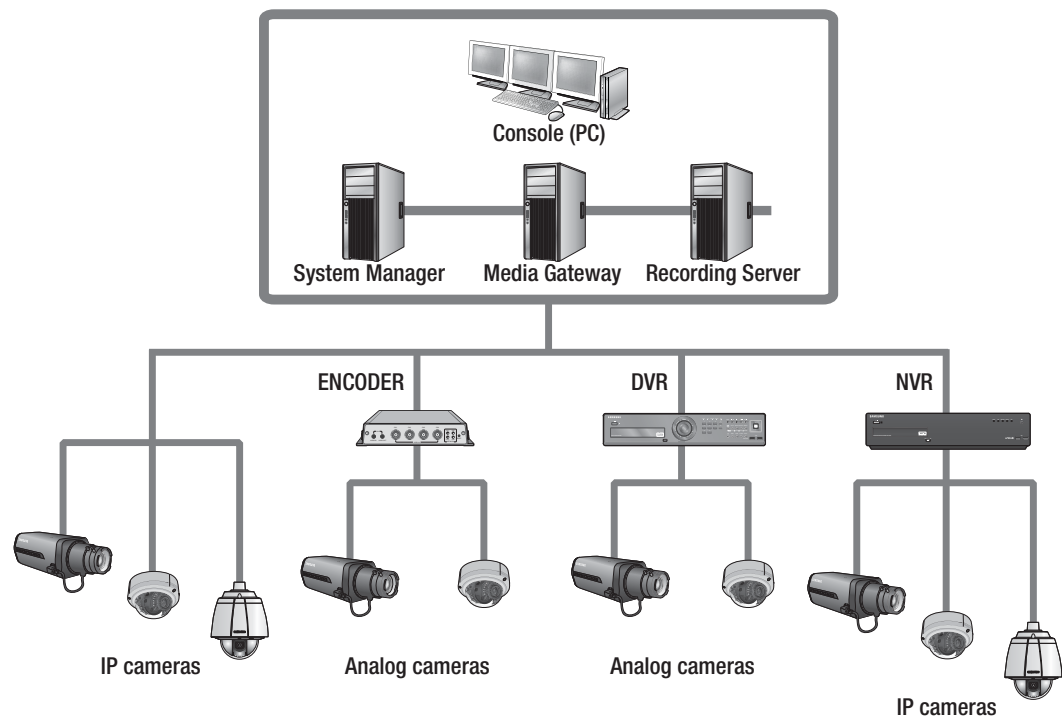
It provides users with remote access and playback/search an environment for remote monitoring that employs ease and effectiveness.

### Samsung Security Manager Structure Overview

- Samsung Security Manager consists of the Console program in the client area and System Manage, Media Gateway and Recording Server in the server area.
- Console : Console provides monitoring and controlling user interface.
  - System Manager : System Manager provides administration on all devices and users of the system.
  - Media Gateway : Media Gateway's role is as the centralized relay server for the transmitting of video, PTZ control and events.
  - Recording Server : It acts as a server that saves and broadcasts video from a camera.

### Standalone type

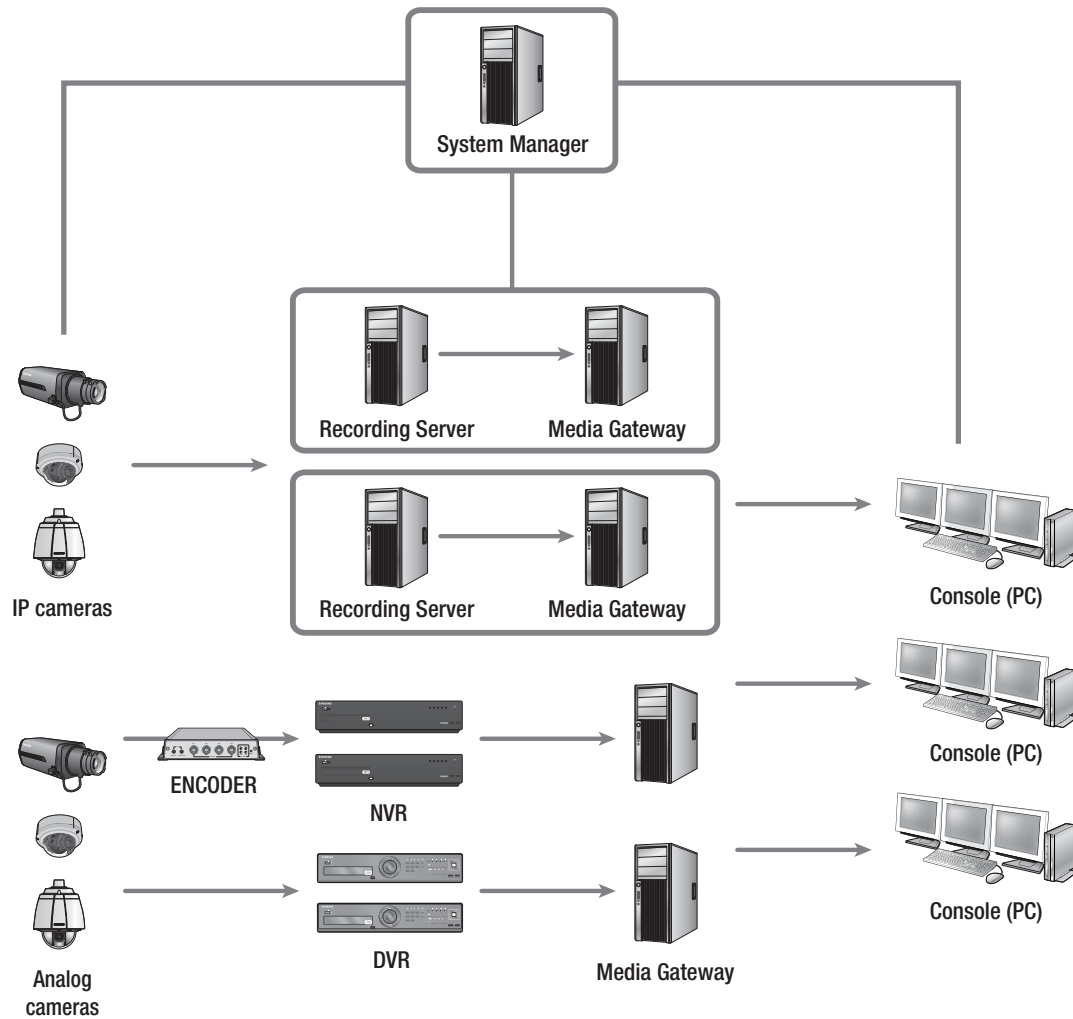
All server components Installed onto one computer.



# overview

## Multi type

In case of distributed installation of the System Manager, Media Gateway and Console on multiple computers:



## Supported Products

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### DVR

SRD-1670(D/DC)/1650(D/DC)/870(D/DC)/850(D/DC)/470(D)/440, SRD-1630(D)/1610(D)/830(D), SRD-1652D/852D, SRD-480D, SVR-1670/3200/1680(C)/1660(C)/1645/960(C)/945/480, SHR-2000/5000/6000/7000/8000 series, SVR-1650E/1640A/950E, SRD-1640/840/1641P/841P, SRD-442, SRD-1653D/1673D, SRD-1654D/854D, SRD-473D, SRD-443, SRD-1676D/1656D, SRD-876D/476D, SRD-1673DU, SRD-445, SRD-856/456, SRD-1680D/880D

### Network Camera

SNB-7000/5000/3000/2000/1000/1001/3002, SNZ-5200, SNO-7080R/5080R/1080R, SNC-B2335/B2331/M300/1300/550/570, SNB-7002/7001/5001, SNO-7082RV, SNB-6004/6003, SNV-6084R, SNO-6084R, SNB-5004 / SNB-5003, SNO-6011R, SNV-6012M, SNV-5084, SNB-7004, SNO-7084R, SNV-7084/7084R, SNV-6013, SNB-6010

SND-7080/5080(F)/3080(F)/3080C(F)/1010/1080/1011/3082, SNV-7080/5080/3080/5010/3120/5080R/3082/1080/1080R, SND-560/460V, SNC-B5368/B5399, SNV-7082V, SND-7082V/7082FV, SND-6084/6083, SND-6084R, SND-7084/7084R

SNP-5200(H)/3430H/3370, 3371(TH)/3301(H)/3120(V/VH)/3302(H), SNC-C6225/C7225/C7478, SNP-3300A/1000A/3750/3350, SNP-6200/H, SNP-5300/H, SNP-6201/H, SNP-6200RH, SNP-6320/ 6320H, SNF-7010, SNF-7010V, SNF-7010VM

### NVR

SRN-6450/3250, SNR-6400/3200, SRN-1670D/470D, SRN-1671, SRN-1000, SRN-4000, SRN-472S

### Encoder

SPE-400/100/101, SPE-1600R, SNS-400/100

### Controller

SPC-2000

### Panomorph Lens

IMV1-1/3 Panomorph CS mount (SNB-5000 compatible)

### SW NVR

NET-i ware\_SNS\_SF064/SNS\_SF032/SNS\_SF016/SNS\_SF008/SNS\_SF004, SSMRS20/SSM-RS10/SSM-RS00

# overview

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## System Requirements

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Item	Minimum	Recommended
CPU	Intel Core i5-4670 @ 3.40GHz	Intel Core i7-4770 @ 3.40GHz
RAM	4 GB or more	8 GB or more
HDD	More than 20 GB of free space for installation - For operation, the system log database requires 10 GB or more free space.	
OS	1. Console, Configuration Manager - Windows 7 32bit/64bit - Windows 8 32bit/64bit - Windows 8.1 32bit/64bit 2. System Manager / MediaGateway - Windows 7 32bit/64bit - Windows 8 32bit/64bit - Windows 8.1 32bit/64bit - Windows Server 2008 R2 64bit - Windows Server 2012 32bit/64bit	

### Configurable monitoring systems according to the system performance:

- Minimum Specifications : Allows access to 16 channels, with monitoring 16 channels at CIF resolution.
- Recommended Specifications : Allows access to 64 channels, with monitoring 64 channels at 4CIF resolution.

## MAIN FEATURES SAMSUNG SECURITY MANAGER

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- Live Viewer
  - Supports simultaneous video display of up to 64 monitoring tiles per monitor, maximum 4 monitors for 100 monitoring tiles
  - One footage file can save up to 1 hours worth of video
  - Supports full-screen mode
  - Place video feed at any desired tile using drag-n-drop
  - A simple double-click adds a video feed to the video screen
  - Supports sequenced automatic source switching
- Event Viewer
  - Provides search function for events and real-time logs
  - Provides 1-channel playback for events
  - Provides methods of acknowledging, recording, and search on an event
- Search Viewer
  - Up to 16 videos can be played simultaneously
  - Supports periodic backup (self-executable footage)
  - Search for and play the data for each event stored in the storage device

- Configuration Manager
  - User login and restrictions according to privilege
  - Equipment registration and allocation
  - Layout setting and allocation
  - Scheduled backup setting
  - Schedule setting
  - Easy guide
  - Device configuration file
  - SSM configuration file
  - Recording Server Schedule Setting
- Console setting
  - SSM console local setting
  - Screen and event local setting
- Updating
  - Supports remote updating of software using update server

## TERMS FREQUENTLY USED

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- Tree : Display area that shows a list of registered objects and their hierarchy.
- Context Menu : Pop-up menus that appears when right mouse button is clicked.
- Device : Includes DVR, NVR, Video Server, and Network Camera.
- Tile : Unit screen cell that displays video.
- Object : Object is an overall term for the device, camera, site, layout, sensor, etc.
- SSM : Abbreviation of Samsung Security Manager.

# installation

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## INSTALLATION

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### Before Starting

#### Setting SSM Password

The user inputs the password when installing SSM (recording Server) or registering the recording server in SSM. The password is used for authentication to register the recording server in SSM and can be changed.

[Mandatory]

- The ID and password should not be the same.
- The password should be at least 8 digits and at most 32 digits.
- If the password is smaller than 10 digits but at least 8 digits, it should be a combination of letters, numbers and special characters (no limitation on special characters).
- If the password is 10 digits or more, it should be combination of letters and number at the minimum.

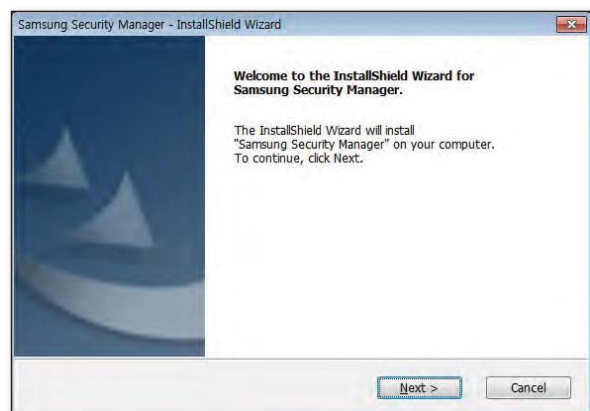
[Optional]

- 3 or more contiguous characters cannot be used. (ex. abc or cba).
- 4 or more contiguous keyboard keys cannot be used. (ex. asdf or 4321).
- 3 or more repeated characters cannot be used (ex. 111, qqqq)
- A password that violates the mandatory criteria cannot be set.
- A password that violates the optional criteria may be used, but a warning message will be displayed.
- The user inputs the password twice, and the password is set only when two inputs are identical.
- The password is used for authentication to register the recording server in SSM and can be changed in Service Manager after the installation.

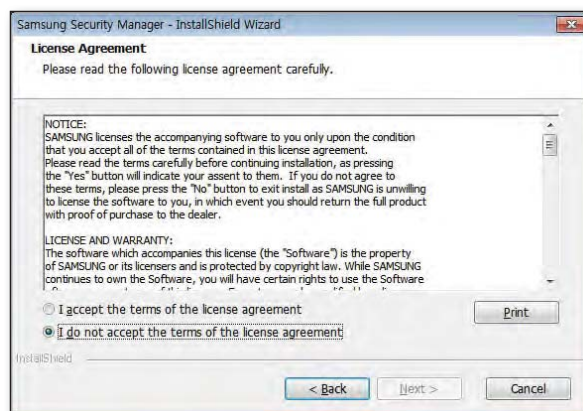
### Installing the SSM

Run the Samsung Security Manager installer program on a local PC to install the Samsung Security Manager. Software installation requires about 20 minutes, depending on installation conditions.

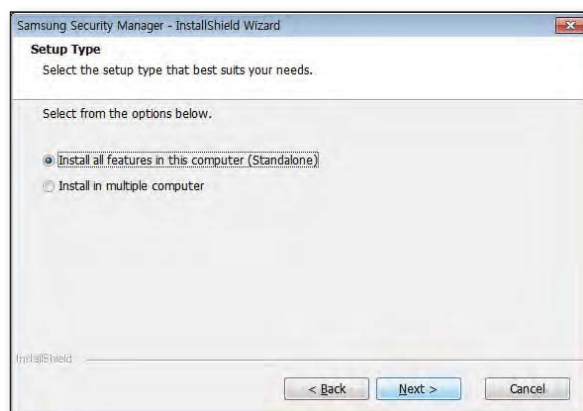
1. Use provided CD or download and run Samsung Security Manager installer, "**SSM\_vx.xx\_xxxxxx.exe**".
2. When the installation screen appears, click **[Next >]** button.



3. Check license agreement and then click **[Next >]** button to proceed to the next step.



4. Choose whether to install all or partial components.
  - Install all features in this computer (Standalone) : System Manager, Console and Media Gateway are installed on a single computer.

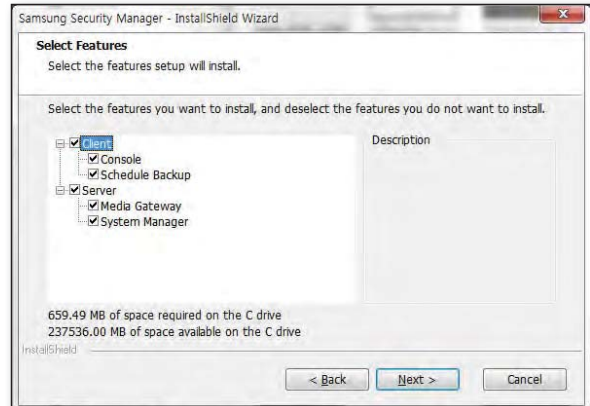


# installation

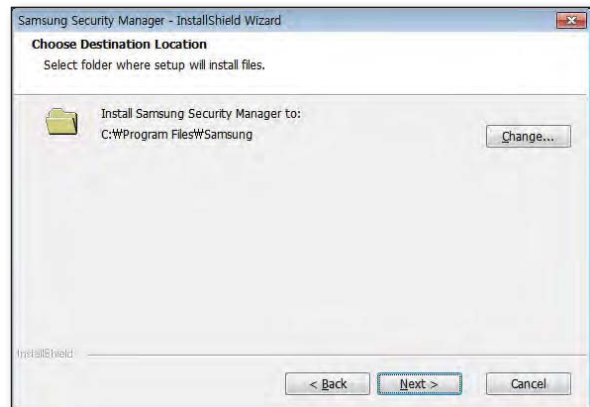
- Install in multiple computer : Installs only selected components of System Manager / Console / Media Gateway onto the PC.



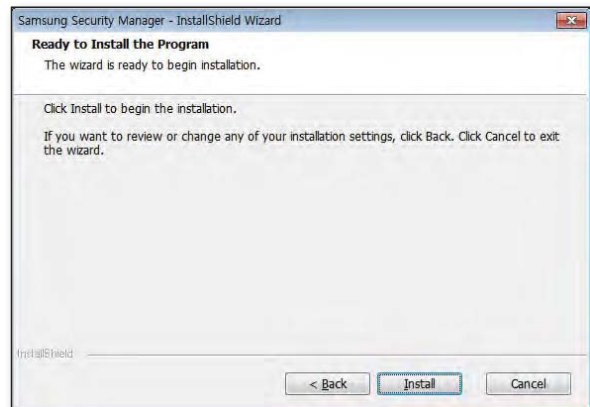
- For information on complete structure according to the installation type, refer to "**Samsung Security Manager Structure Overview**". (Page 5)



5. Specify the folder path to save the installation program. By default, it is set to "**C:\Program Files\Samsung**".
  - To change the path, click [**Change...**] button and enter the desired path directly or browse to select one.
6. To proceed to the next step, click [**Next >**] button.

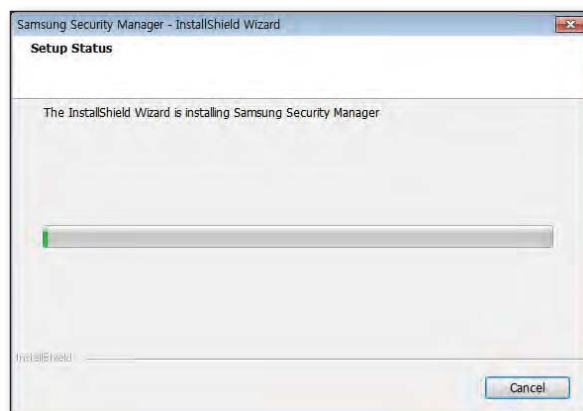


7. Click [**Install**] button to begin installation.

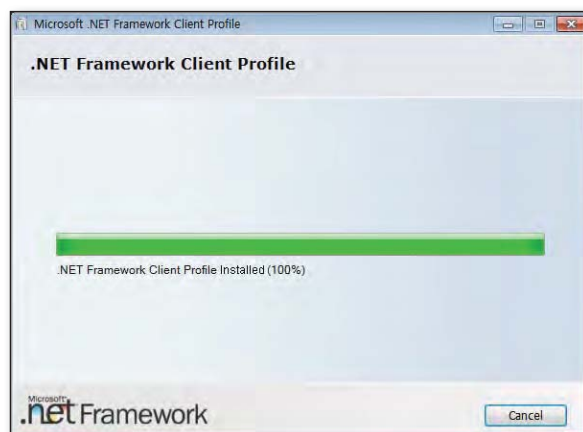




8. Samsung Security Manager begins its installation.

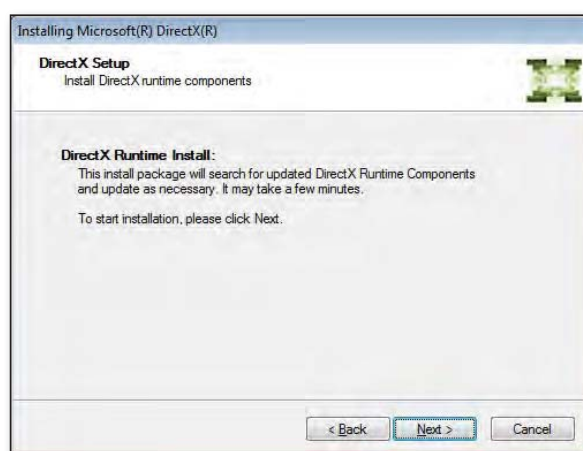


9. When prompted with .NET Framework license agreement, agree and proceed to the next step.



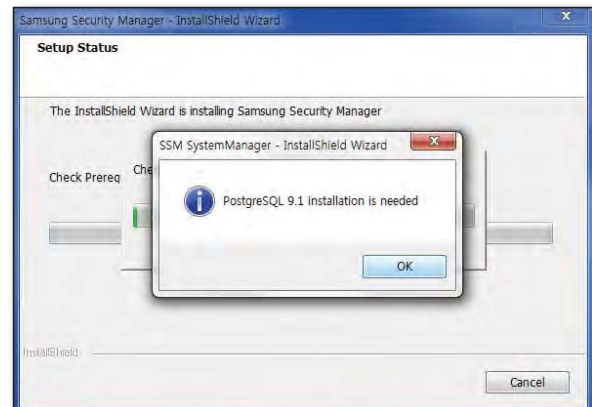
10. DirectX installation package, agree to the license agreement and click **[Next >]** when prompted with license agreement.

11. Upon completion of DirectX installation, click **[Finish]** to proceed.



# installation

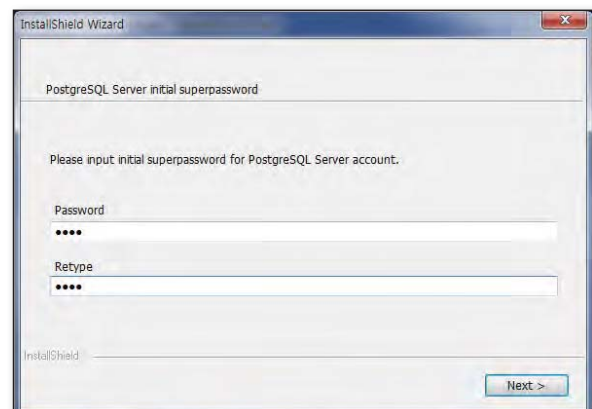
## 12. Install PostgreSQL.



## 13. Enter the initial password for PostgreSQL.

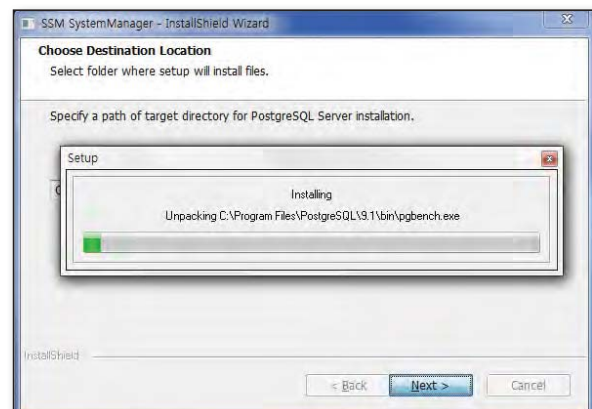


- A password should be at least 8 digits and less than 10 digits in a combination of letters, numbers and special characters. Or it can be 10 digits in combination of letters and numbers.



## 14. Continue the PostgreSQL installation.

When installation is complete, the SSM administrator password input window is displayed.



15. Enter the password.



- A password should be at least 8 digits and less than 10 digits in a combination of letters, numbers and special characters. Or it can be 10 digits in combination of letters and numbers.



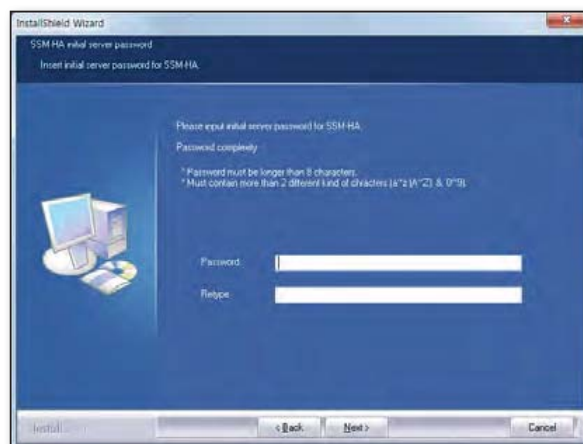
16. The HA installation process is displayed. Select an installation type and click the **[Next >]** button to proceed to the next step.

- Complete selected : All programs are installed.
- Custom selected : The user can custom select only the programs to be installed.



17. Enter the initial SSM-HA password.

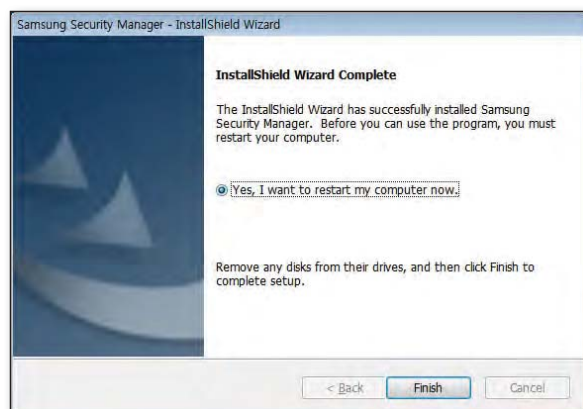
Click the **[Next >]** button to proceed to the next step.



# installation

18. Upon completion, click **[Finish]** button.

- If installed with required prerequisites, no further installation popup will appear.

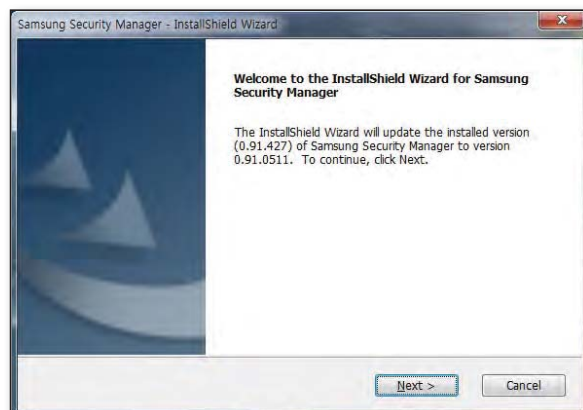


## Updating

If Samsung Security Manager is already installed, you may update the application by running the update program to the latest version.

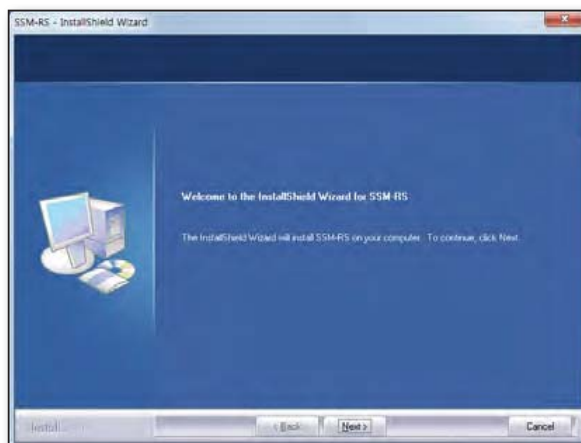
1. Run the update installer "**SSM\_vx.xx\_xxxxxx.exe**".  
The Update dialog should appear.
2. Click **[Next >]** button to proceed.

- After updating the software application, restart the PC.

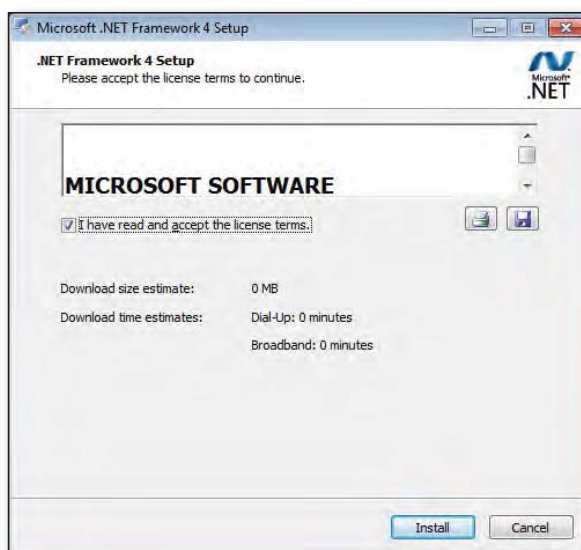


## Installing the SSM Recording Server

1. Run SETUP.EXE the Recording Server installation program included in the DVD or user's PC.
2. Click the **[Next >]** button to move to the license agreement step.

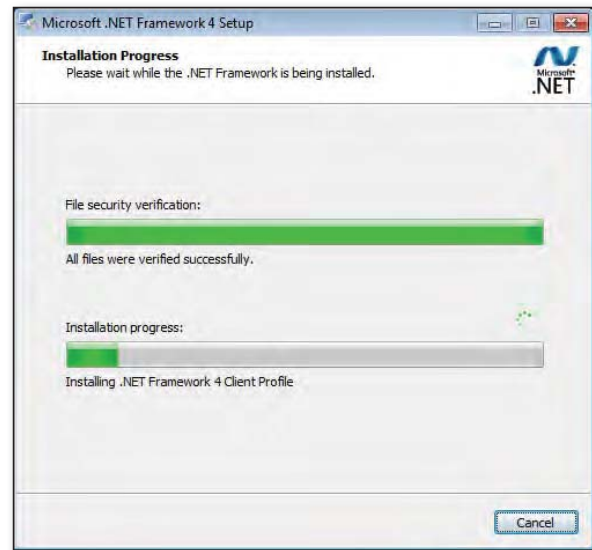


3. If .NET Framework 4.0 is not installed on the user's PC, installation of .NET Framework 4.0 will begin.
  - If NET Framework 4.0 is not installed the Recording Server will not operate properly.
  - .NET Framework can be downloaded and installed at the MS download center.
- ① In the A NET Framework S/W installation window click on the **[I have read and acept the license terms.]** button.



# installation

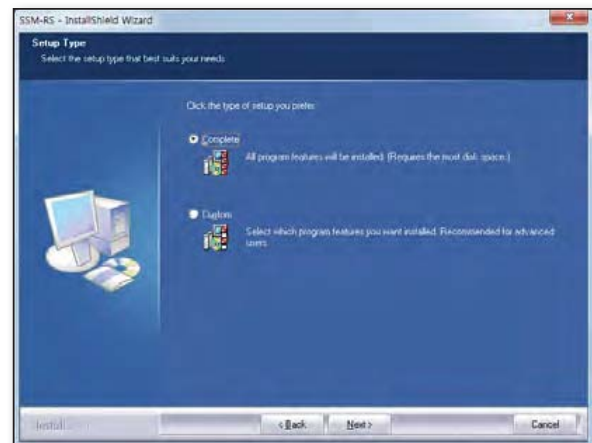
- ② The installation indicator will be displayed in the window while NET Framework is being installed.
  - After finishing installing - .NET Framework 4.0, you can restart the system depending on the PC conditions.



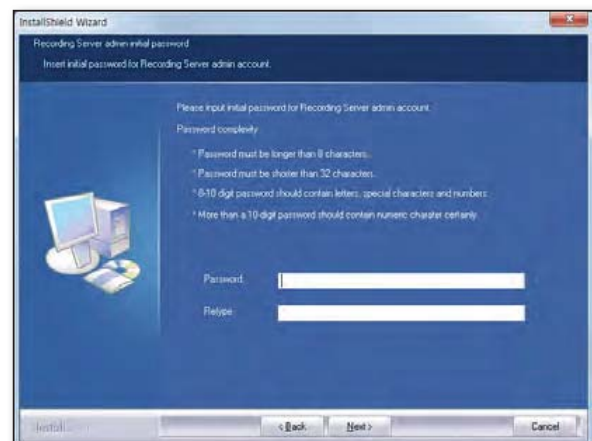
4. Installation of Sentinel Runtime begins when the dongle key driver is not installed in the user PC.
  - The recording server does not run properly if Sentinel Runtime is not installed.
  - The Sentinel Runtime Installation program can be downloaded from <http://www.safenet-inc.com> for installation.

① Click the **[Next >]** button in Sentinel Runtime Installation.

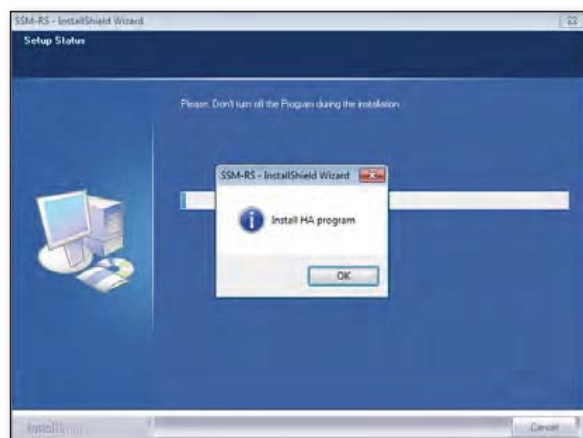
5. Select a SSM-RS configuration type and click the **[Next >]** button to proceed to the next step.
  - You can decide whether to install HA by selecting 'Custom' installation.



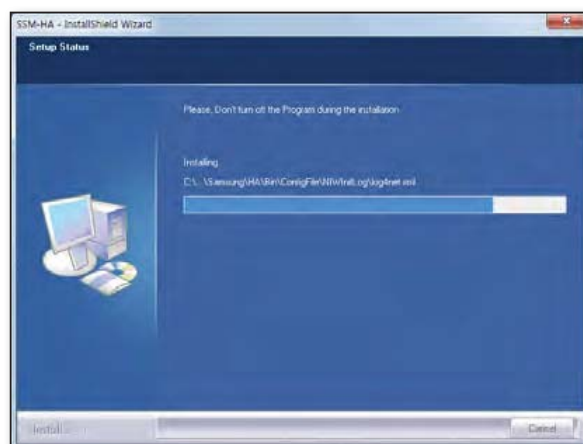
6. Input the initial SSM-RS password.  
Click the **[Next >]** button to proceed to the next step.



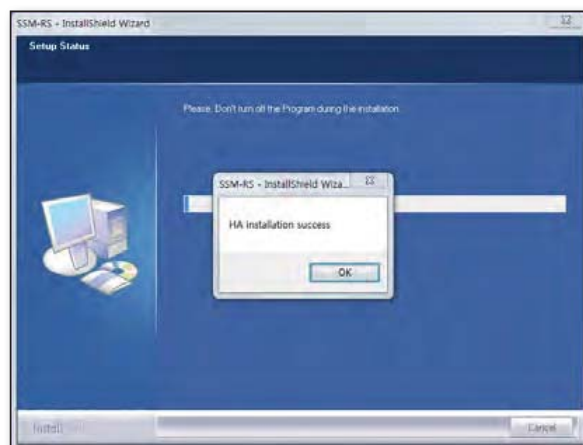
7. Click the <OK> button in the "Install HA program" dialog box to install the HA program.
  - HA Server and Client can be selectively installed during the HA installation step.



8. The HA program installation begins.



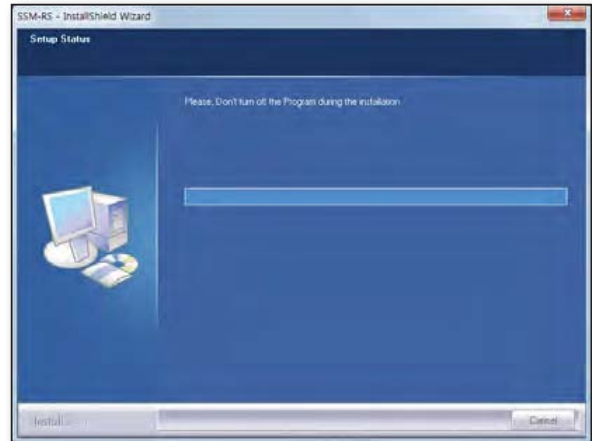
9. The completion confirmation dialog box is displayed after the HA program is successfully installed. Click the <OK> button.





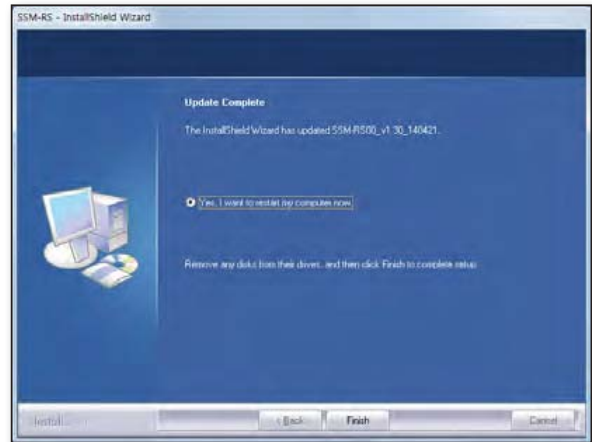
# installation

10. Preparing to install the Recording Server.



11. When the installation has finished successfully, click on the **[Finish]** button to terminate.

- After installation is finished, the PC will restart.

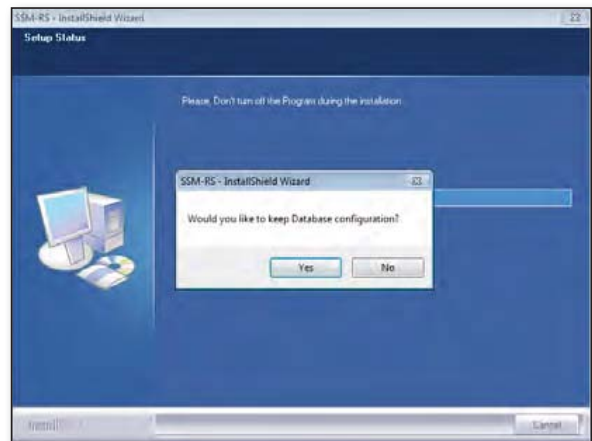


## Upgrade

If the Recording Server is already installed on the PC. You can run the upgraded program file or use Update Manager to perform upgrades.

Click the **<Yes>** button to maintain the existing database during updating.

- After updating software applications, restart the PC to prevent malfunctions.





# getting started

## CHECKING INSTALLED INSTALLATION

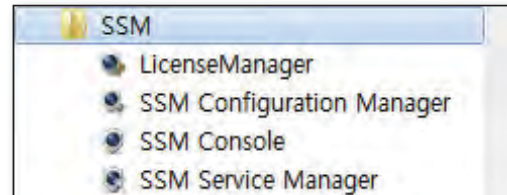
### SSM

Check whether the Samsung Security Manager installation has been successfully installed.

1. Click <Start> Windows menu.
2. If Samsung Security Manager has been successfully installed, SSM submenu should show 4 items of <LicenseManager>, <SSM Configuration Manager>, <SSM Console> and <SSM Service Manager>.



- For distributed installation, only those menu items selected in installation will appear. Refer to the "Installation" section. (Page 10)



### Recording Server

After finishing the installation, check if the Recording Server is installed properly.

1. Click <Start> Windows menu.
2. If the Recording Server is installed properly, you will see the 3 items, <LicenseManager>, <ServiceManager> and <Uninstall> below the Recording Server.
  - When you run the program for the first time, the language for the Recording Server is automatically set to the OS language.



### HA

Check if HA Manager was successfully installed after the installation is completed.

1. Move to the <Start> menu.
2. If HA is successfully installed, <HA Manager> sub folder is displayed under the 'HA' folder.



# getting started

## GETTING STARTED WITH SAMSUNG SECURITY MANAGER

### In case of Standalone installation

1. Click <SSM Service Manager> shortcut icon or expand and click "**Start > Samsung > SSM > SSM Service Manager**".

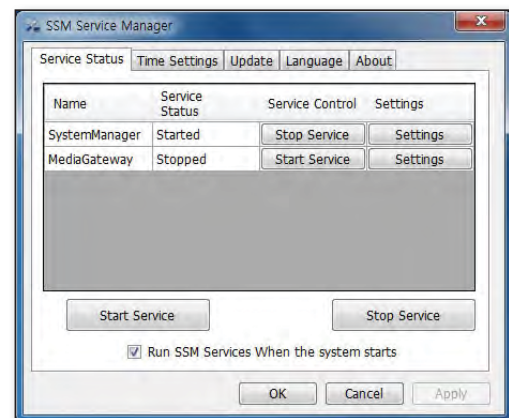
- SSM Service Manager : A software program that manages server software products. To use SSM Console, the server should be ready.



2. Double click <SSM Service Manager> icon on the task tray or click right mouse button on it to open context menu and click <View Service Status>.
3. Click <Start Service> button.  
If successfully installed, each installed program component should show its <Service Status> as <Started>.
4. Run the SSM Configuration Manager to utilize the SSM Console program after the initial installation.



- If the program is already set, Start SSM Console right away.



### In case of multi installation

A Media Gateway server computer can connect to only 1 System Manager. A System Manager accepts connections from multiple Media Gateway servers. A System Manager accepts connections from multiple Console clients.

1. Run the Service Manager on the computer installed with the System Manager. (Page 145)
2. Click <Start Service> button.
  - If successfully installed, the System Manager should show its <Status> as <Started>.
3. Run the Service Manager on the computer installed with the Media Gateway. (Page 145)
4. Run the Service Manager on the computer installed with the Media Gateway and click <Start Service> button.
  - If successfully installed, the Media Gateway should show its <Status> as <Started>.



5. Run the SSM Configuration Manager to utilize the SSM Console program after the initial installation.



- If the program is already set, Start SSM Console right away.

## USING SSM LICENSE MANAGER

The program manages the licenses of all SSM products.  
SSM License Manager supports activation, deletion and transfer of SW licenses.  
It also supports the license activation of the HW dongle key used by SSM-RS and SSM-VM v1.0.

### License Type

The SW license and HW dongle key license are supported.

- SW license : Supported by SSM v1.3 or higher
- HW dongle key license : License used by SSM-RS and SSM-VM v1.0 to maintain backward compatibility
  - If the SSM-RS v1.0 promotion (16ch) is used, the license activation is not needed when the update is installed.

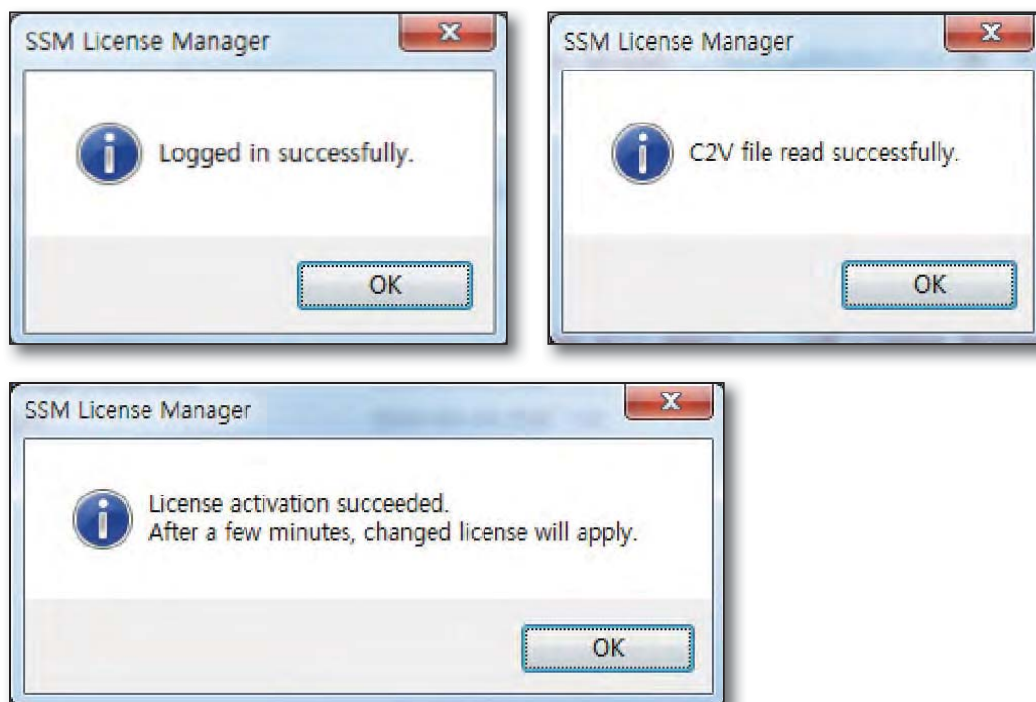
### License Activation

#### Online SW Activation

The online SW activation menu allows the user to activate the license if the user can access the EMS server (license server) through a Web page.

#### Procedure

1. Select the **[Online SW Activation]** menu of License Manager.
2. Input the product key and click the **[Activation]** button.
  - 3 messages are displayed when the license is activated.



# getting started

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## License Server Data

<https://ems.samsungsecurity.com/ems/customerLogin.html>

## Cases of Failed License Activation

1. When a 'Trust Failure' pops up while a user is verifying a license online: Please check the time and the system will synchronize the Internet time. (Server : time.windows.com)
2. Failed login to the license server online: Check if Internet is connected.
3. Attempt to authenticate the license of already authenticated product key: Check if the license key was already authenticated. An authenticated license key cannot be authenticated again.
4. Terminated license module service: Check if the ACC page can be accessed.  
If not, check if the Sentinel LDK License Manager service in the service menus is stopped and start the service.
  - ACC page : <http://localhost:1947>

## Offline SW Activation

Offline SW activation allows the user to activate the license when the user cannot access the EMS server (license server) through the Web page.

Create a C2V file in the PC to authenticate the license and create a V2C file in the PC that has access to the license server then authenticate the license.

## Procedure

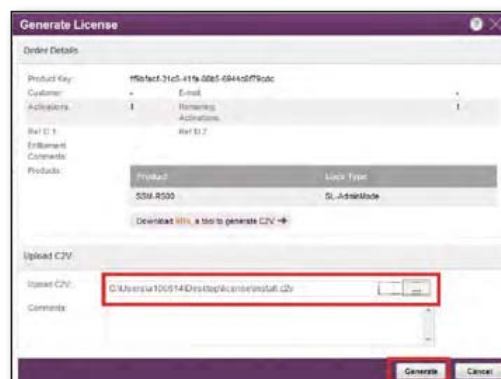
1. Select **[Offline SW Activation]** in the License Manager.
2. Click the **[Collect information]** button in the Collect Status Information menu to collect the PC data to activate the license.
  - Create a C2V file with the **[Collect Information]** button (to collect the PC data to authenticate the license).
3. Connect to the license server Web page (EMS) from a PC that has online access to the license server.
  - Address : <https://ems.samsungsecurity.com/ems/customerLogin.html>
4. Log in with the product key provided.
5. Click the **[Register Later]** button in the upper right corner.



6. Click the **[Offline Activation]** button in the upper right corner.



7. In the Generate License popup dialog box, upload the C2V file run in Step 1 and click the **[Generate]** button. Download the generated V2C file.
  - Create a V2C file (license file) using the C2V file containing the collected PC data.
8. Retrieve the downloaded V2C file from **[Apply License File]** of the **[Offline SW Activation]** menu of the License Manager. Then click 'Apply Update' to register the license in the PC.



## HW Dongle Activation

This section describes the activation of HW dongle key license.

- HW dongle key : A license key supported by SSM-RS and SSM-VM v1.0

Run **[HW Dongle Activation]** menu of the License Manager.

To activate a HW license, the current service must be stopped before the license is activated.

After the HW license is activated, the use must restart the service manually.

### Procedure

1. Stop service of the product to activate the license.
2. Select the **[HW Dongle Activation]** menu in the License Manager.
3. Click the **[Check Hardware license information]** button to check the dongle key information.
4. After checking the HW dongle key information, click the **[Activation]** button to activate the license.
5. Restart the stopped service.
  - The HW dongle key license cannot be activated remotely.

# getting started

---

## License Removal

---

This function is applicable only to the SW license. The menu is used when a customer demands a refund after purchasing a product.

Upon a demand for a refund, the key ID of the purchased product is sent to the seller to delete the license.

### Checking the Product Key ID

Select the feature of the key in Options > Products in the left hand side of the ACC page.

- ACC page URL: <http://localhost:1947/>

### Procedure

1. Send the product key ID to the licenser server administrator and request the removal of the license.  
Send the license key data issued upon the demand for refund. (Refer to the product key ID checking.)
2. Delete the license using the V2C file (license removal file) received from the license server (EMS). It is run in [1] of the [Remove SW license] menu of the License Manager.
  - When the V2C file (license removal file) is updated, the product information of the product is deleted.
3. Create a C2V file to confirm that the license was successfully deleted.  
Click the **[Collect information]** button in [2] of the **[Remove SW license]** menu of the License Manager.
  - If there are multiple authenticated licenses, a license list popup window is displayed. Select the deleted product key and create the C2V file of the selected key.
  - If only one license was authenticated, the license list popup window is not displayed, and the C2V file of the deleted product key is automatically created.
4. Send the created C2V file to the license administrator.




## License Transfer

This menu is used to transfer the license due to the PC problem or upgrade.

- Source PC : PC of the authenticated license
- Recipient PC : PC to receive the new license

### Procedure

1. Create the ID file to collect the PC data in the recipient PC.  
Run [1] in the [**Transfer license**] menu of the License Manager.
    - If the recipient PC has the multi byte (Korean, Chinese, Japanese, etc.), the license cannot be transferred. Change the computer name to English or number before transferring the license.
  2. Create a transfer license file in the source PC.  
Run [2] in the [**Transfer license**] menu of the License Manager.
    1. Configure the ID file created in the recipient PC in the 'Read the recipient information file'.
    2. Configure the name of the transfer license file.
    3. Select the license key to transfer from the license list.
    4. Click the [**Generate License Transfer File**] button to create a transfer license file (H2H file).
      - When a license key is transferred, the license key to be transferred is removed from the list.
  3. Apply the transfer license file (H2H file) to the recipient PC.
    - The transferred license key can be checked in the license list after the H2H file is uploaded.
    - The transferred license can be checked in the ACC page also.
-  **Caution when Using the SW License**
- The license activation is not needed after upgrading or re-installation after removal.  
The license exists in the PC until the hard disk is formatted.
  - Transfer the license to a new PC first when replacing a PC.
  - When OS is reinstalled (after HDD format), transfer the license to another PC temporarily and then retrieve it.
  - Actual PC instead of VMWare is recommended.  
The SW license may not run properly in VMWare (ex., after duplication of VMWare).

# SSM configuration manager

This function is used to register the SSM console users and devices, configure the screen layout, and set up the schedule and backups.

Use **<Standard Setup>** to set up the whole system, or **<Easy Guide>** to setup only the basic guide for monitoring.


## LOGIN/LOGOUT

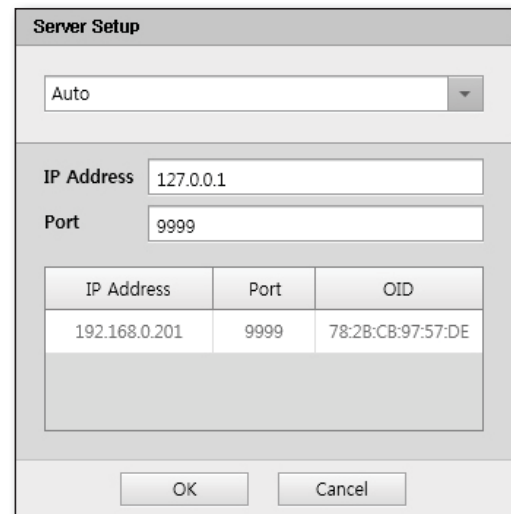
### Login

SSM Configuration Manager requires the user to log in after the program is started for normal operation.

1. Click the SSM Configuration Manager icon.  
The login authentication window is displayed.
2. Enter the user ID and password in the login window.
  - Default ID: admin
  - Password: Enter the password registered during the installation step.



- If the SSM is installed in distributed mode and you need to start a program installed in another server, click the [  ] button located below the login button in the login window to register the server to either **<Auto>**, **<Manual>** or **<DDNS>**.
- If it is set to **<Auto>**, SystemManager is automatically selected. If it is set to **<Manual>**, System Manager can be selected from the list, or IP address and Port information can be set.
- If it is set to **<DDNS>**, then the DDNS input field will be activated.



3. The selection menu is displayed when the program is started for the first time.  
Select a menu option according to the desired configuration.
  - After the initial run, the program will be started in **<Standard Setup>** mode.



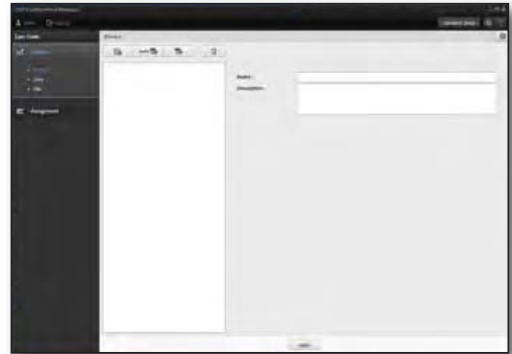


## Easy Guide

---

This only shows the minimum menu options needed for monitoring, such as device registration and allocation.

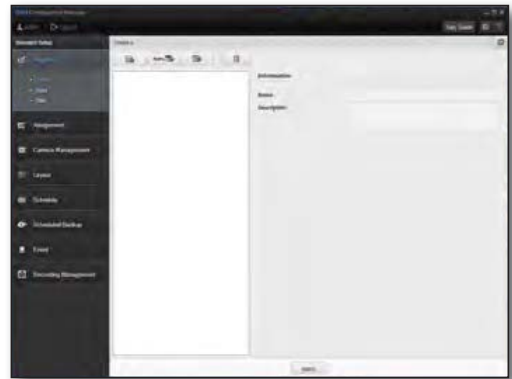
Only device, user group, user, and site registration and allocation are enabled in this mode.



## Standard Setup

---

All functions of Configuration Manager can be set up.



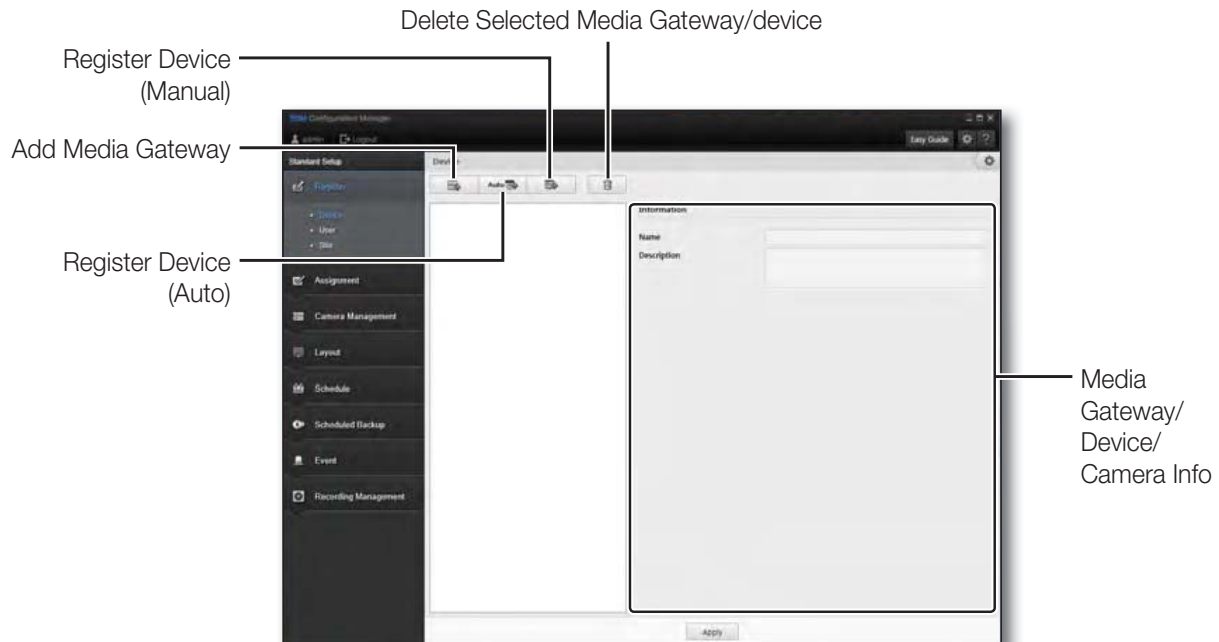
# SSM configuration manager

## REGISTRATION

### Device

You can register the Media Gateway and the Recording Server and a device below it.  
This lists the devices registered by the user.

A device can be added when <MediaGateway> is selected in the tree menu.




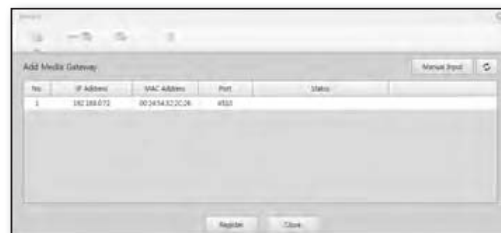
- A media gateway is a server which is connected to the camera, DVR, encoder or recording server to manage and relay the devices. Since the console communicates with the devices through the media gateway without being directly connected to the device, the media gateway must be selected first before the registration of devices.

- The protocol supported in SSM are SUNAPI, SVNP and ONVIF.

## Setting the Media Gateway for Standalone Installation

### To add a Media Gateway :

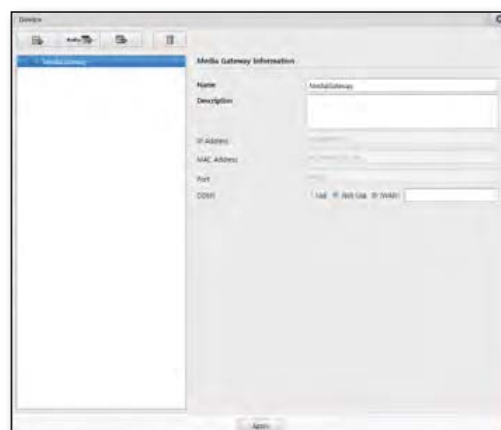
1. Click [  ] button in device setup page.
2. Select a desired Media Gateway from the list and click [Register] button.
  - If Media Gateway IP address is displayed as 0.0.0.0, be sure to check your PC's network settings.
3. If the information of MG to be registered is not in the list, check <Manual Input>, and then enter the IP and port number.
4. To finish registration and close the window, click [Close] button.



### To edit Media Gateway information:

The right pane shows information on the Media Gateway selected from the tree menu, which is available to edit.

1. Click on a desired Media Gateway to be edited.
2. Edit name and description of the selected Media Gateway.
  - DDNS Use/Not Use : This is the setting used to remotely access the media gateway. Input the DDNS ID if the DDNS is used and IP (WAN) address if not.
    - IP (WAN) : Enter IP (WAN) generated for each media gateway.
  - IP address, MAC Address, and port number are for display only and cannot be modified.
  - Refer to '**Option Setting**' for details of setting the DDNS of the System Manager. (Page 78)



### To delete a Media Gateway:


Select a Media Gateway to be deleted, and click [  ] button.

# SSM configuration manager

## Setting the Media Gateway for Distributed Installation

1. Run the Service Manager on the computer installed with the System Manager. (Page 145)
2. Run the Service Manager on the computer installed with the Media Gateway. (Page 145)
3. On the Media Gateway server, set the IP address and port number of computer installed with the System Manager.

### To add a Media Gateway


1. Click the [  ] button in the device setup window.
2. The list of media gateways that can be registered in System Manager that the console accesses will be displayed.
3. Select a desired Media Gateway from the list and click [Register] button.
  - If Media Gateway IP address is displayed as 0.0.0.0, be sure to check your PC's network settings.
4. If the information of MG to be registered is not in the list, check <Manual Input>, and then enter the IP and port number.
5. To finish registration and close the window, click [Close] button.



## Adding Devices

### To add a device automatically:



You can search add a device connected to your local network automatically.

1. Click [  ] button.  
All discovered devices or Recording Servers from the local network are shown in the "Register Device (Auto)" list.
  2. Select a device or Recording Server to register from the list.
    - SVN or SUNAPI can be registered as the protocol type. If SUNAPI is selected as the protocol type, the cameras supporting SUNAPI can be searched and registered. (Refer to Appendix for models supporting SUNAPI.)
  3. Enter the ID and password, and click [Register] button.
    - The User ID and password should be the account registered to the corresponding device.
    - If connection encounters error, corresponding message of cause is displayed in the status tab.
    - Refer to "Installation of SSM Recording Server" for details of password setting.
  4. Once registered, it is marked as "Registered" in status tab, and added under the Media Gateway list.
  5. To finish registration and close the window, click [Close] button.
- IP Install : The device network can be configured. Input the network data to change. If the device password matches, the network data of the device can be changed.



### If you want to add a camera to the Recording Server



You can automatically search for a camera registered in the Recording Server.

1. From the device list, select a Recording Server to register a camera for.
2. Click on the [  ] button.
  - <Samsung> or <ONVIF> can be selected when registering a camera in the recording server. When <Samsung> is selected, either SVN or SUNAPI can be registered as the protocol type.
  - If the vendor is set to <ONVIF> when registering a camera of the recording server, the <ONVIF> cameras can be searched and registered.
    - Registering ONVIF model is only supported in the SSM-RS10 and SSM-RS20 models.
  - If the vendor is set to <Samsung> and the protocol type to <SUNAPI> when registering a camera of the recording server, the cameras supporting SUNAPI can be searched and registered. (Refer to Appendix for models supporting SUNAPI.)
3. Select a camera to register from the list of cameras.
4. Enter a user ID/password and click on the [Register] button.
  -  User ID and password are the ones saved in a camera that you want to register.
  - If connection problems are encountered, a corresponding message of the cause will be displayed in the status tab.
5. Once registered, it is marked as “Registered” in status tab, and added in the sub list of the Recording Server in the tree menu.
6. To finish registration and close the window, click [Close] button.

# SSM configuration manager

## To add device manually:


Device can be registered manually by a user, by directly entering required information.

1. Click [  ] button.  
"Register Device (Manual)" window should appear.
  2. Select the model name for a device or Recording Server that you want to access.
  3. Select the address type.
    - Available types are static IP, URL, Samsung DDNS, S1 DDNS, and iPOLIS DDNS.
    - Available address type can be different depending on the device.
    - If a model type that SUNAPI can be registered with is selected in the manual device registration, a protocol type combo box is output. (Refer to Appendix for models supporting SUNAPI.)
  4. Provide required information for connection to the device.
    - Required information is dependant to the set address type.
  5. Enter the ID and password.
    - The User ID and password should be the account registered to the corresponding device.
  6. Click [Register].
    - If connection encounters error, corresponding message of cause is displayed.
-  ▪ When a device is registered in Easy Guide mode, the site and administrator group are automatically assigned. In Standard Setup mode, the administrator group is automatically assigned after the device is registered and the site is assigned.



### If you want to manually add a camera to the Recording Server

You can directly enter the information of a camera registered in the Recording Server.

1. From the device list, select a Recording Server to register a camera for.
  2. Click on the [  ] button.
  3. Select the desired camera's model name.
    - <Samsung> or <ONVIF> can be selected when registering a camera in the recording server. When <Samsung> is selected, either SVNIP or SUNAPI can be registered as the protocol type.
    - If the vendor is set to <ONVIF> when registering a camera of the recording server, the <ONVIF> cameras can be searched and registered.
      - Registering ONVIF model is only supported in the SSM-RS10 and SSM-RS20 models.
    - If the vendor is set to <Samsung> and the protocol type to <SUNAPI> when registering a camera of the recording server, the cameras supporting SUNAPI can be searched and registered. (Refer to Appendix for models supporting SUNAPI.)
  4. Select the address type.
    - The available address types are: IP Address, URL, websamsung.net, samsungipolis.com.
    - The available address types may vary depending on the camera model.
    - If a model type that SUNAPI can be registered with is selected in the manual camera registration, a protocol type combo box is output.
  5. Set the necessary information for connecting a camera.
    - Different information is required for each address type.
  6. Enter user ID and password.
    - User ID and password are the ones saved in the camera that you want to register.
  7. Click on the [Register] button.
    - If connection issues are encountered, the corresponding cause message is displayed.
- Appendix : SUNAPI will run properly with the following models and firmware versions.
    - SUNAPI supporting models : SNB-6004, SNB-6003, SND-6084, SND-6083, SNV-6084R, SNO-6084R, SND-6084R
    - F/W version : snb6004\_Series\_2.22\_131218 or higher

# SSM configuration manager

## Editing Device Information

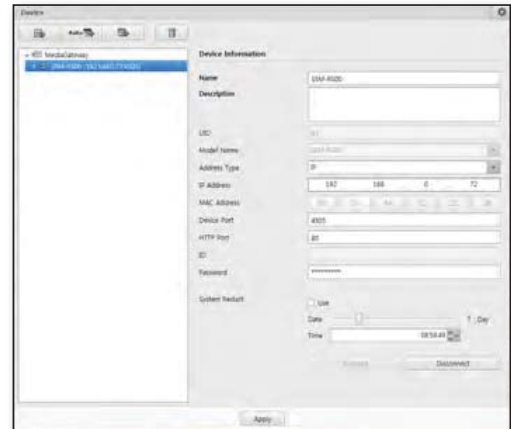
You can edit information of a device registered.

### To edit device information:

1. Select a desired device to be edited.
2. In the right information pane, edit the device information.
3. When finished, click **[Apply]** button.
  - System Restart setting : You can set the period and the execution time to restart the system (PC) periodically.
  - Device Connect : Connects to the selected device.
  - Device Disconnect : Ends the connection to the selected device.



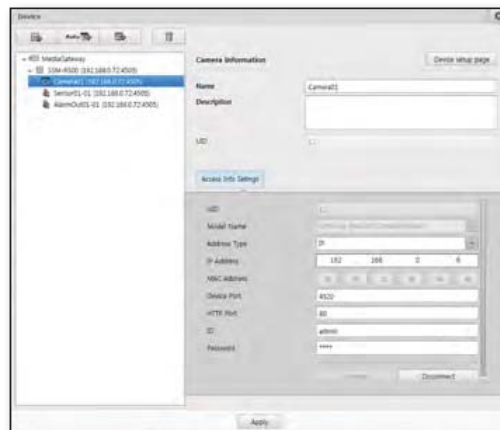
- The feedback of the change of device connection data is displayed in a popup window.
  - Connection successful, Already registered device, IP address crash, MAC address crash, Network error, ID error, PW error, Privilege error, Connection failed, Concurrent users exceeded, No response, S/W version mismatch, DDNS error, Number of allowable registered cameras has been exceeded, 5 times or more password errors with the ID, You can login only after 30 seconds. / Another user is already connected. Do you want to disconnect and login again?
- You can move the registered media gateway by dragging the device in the device tree with a mouse. You can select only one device to move when moving the media gateway.





If you want to modify the camera access information registered in the Recording Server

1. Select a camera registered in the Recording Server.
2. Click on the **[Access Info Settings]** button in the device information menu on the right hand side of the screen.
3. Modify the camera information displayed in the bottom right of the screen.
4. When finished, click **[Apply]** button.
  - Connecting/Releasing connection : It connects/disconnects the connection to the selected camera.

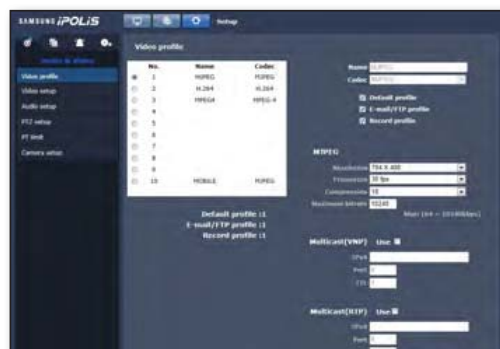


## Viewing the Device Settings

You can see the device related settings information on the Settings Page provided by each device.

To edit device settings:

1. In the right information pane, click **[Device setup page]** button.  
The selected device's settings page should appear.
2. Edit settings as required.
3. When finished with device settings, click **[Apply]** button of the device settings page.
4. To close the device's settings page, click **[X]** button on the top right corner.
  - Device settings page differs from devices connected. For further details, refer to the user manual of each device.



# SSM configuration manager

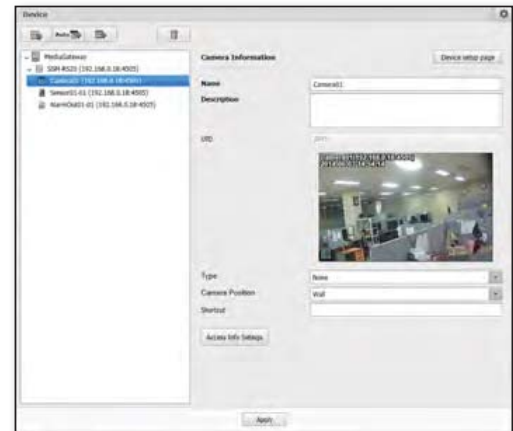
## Camera Info View

Select a device and then a camera under it to check the connected camera information and video.

### To Change Camera Info

1. Select a camera under the selected device.
2. Enter the name and description in the camera info window.
  - If the Panomorph lens is installed, specify the camera position and lens type.  
Check to ensure the camera model is compatible with the Panomorph lens.
  - The camera position can be selected for the Fish-Eye type.

3. When done, click **[Apply]** button.
  - Camera type : The type of camera registered can be selected from "Box, Dome, PTZ, PT Driver, Panomorph, Fish-Eye". When a type is selected, its icon is displayed in the device tree of the Configuration Manager. In the case of Panomorph or Fish-Eye camera, the option must be set in advance to activate the dewarping function in the console.
  - Camera position : Set the camera installation position.
  - Shortcut : Only numbers are accepted for the shortcut to image output.

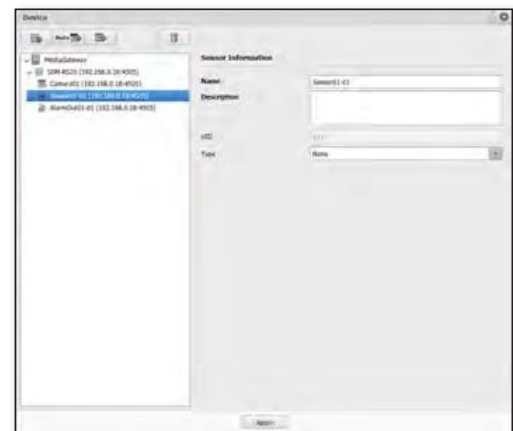


## Sensor Information

Select a device and the lower level sensor to check the connected sensor data.

### To change the sensor data

1. Select the lower level sensor of the device.
2. Input the name and description in the sensor information window.
3. Click the **[Apply]** button after setting.

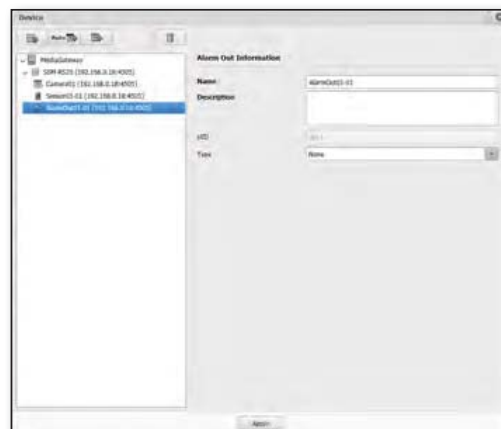


## Alarm Out Data

Select a device and select the lower level alarm to check the connected alarm data.


### To change the alarm out data

1. Select the lower level alarm of the device.
2. Input the name and description in the alarm out information window.
3. Click the **[Apply]** button after setting.



## Deleting a Device

A device can be selectively deleted.

1. Select a device to delete from the tree.
2. Click [  ] button.
3. When confirmation prompts, click **[OK]**.
  - If the related camera is in playback or recording, it automatically aborts.
  - A camera or sensor object cannot be deleted.
  - Using the **<Ctrl>** or **<Shift>** key, select multiple devices in the device tree to delete them at the same time.



## Select a camera registered in the Recording Server

You can select and delete each camera.

1. Select a camera to delete from the tree.
2. Click on the [  ] button.
3. When the camera delete confirmation window appears, click **[OK]**.
  - When you want to delete a camera registered in the Recording Server, in the device delete popup window, you can select to delete the recording file.
  - If you chose to delete the recording file, the recording data will be also deleted.
  - Using the **<Ctrl>** or **<Shift>** key, select multiple cameras registered in the Recording Server to delete them at the same time.



# SSM configuration manager

## Recording Server Setting Information Management

You can import the Recording Server settings or export them as a .cab file or update the firmware for a registered camera.

### Initializing the Recording Server system

1. Select the Recording Server to initialize.
2. Select initialization and click on the **[Restore the Default]** button.

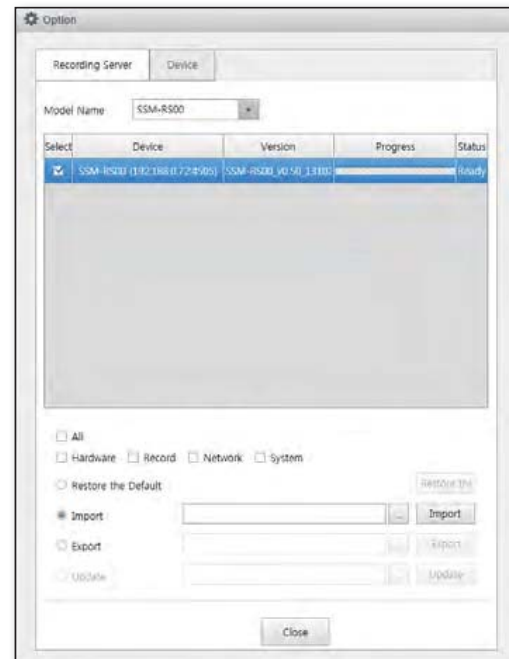
### Recording Server settings information management

You can import the Recording Server's settings information from a file.

1. Click on the [ ... ] button to select the setting to retrieve.
2. Select a saved file.
3. Click on the **[Import]** button.
4. Imports the settings from the selected file.



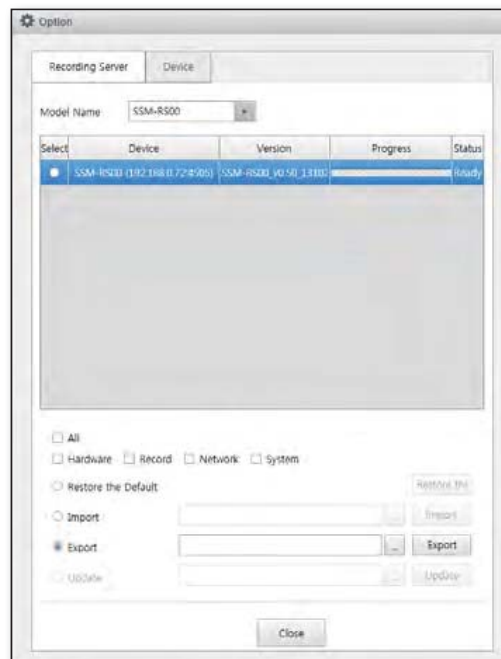
- If you select the **<All>** checkbox, then you can retrieve **<Hardware>**, **<Record>**, **<Network>** and **<System>** items from the Recording Server. You can check and select each set of information.
- You can import multiple Recording Servers at the same time, but only one Recording Server can be exported at a time.



## Importing the Recording Server settings

You can save the Recording Server settings as a file.

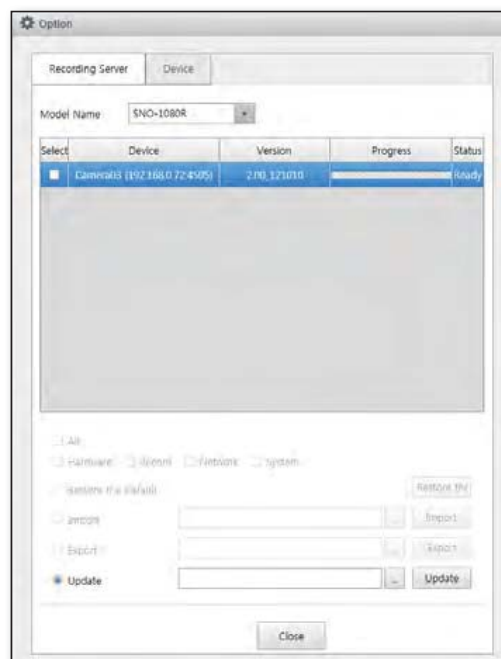
1. Select the Recording Server to be saved as a file.
2. Click [ ... ] button to browse and set the desired file path.
3. Click on the **[Export]** button.  
Settings are saved as a file and the result is displayed as a message.



## Updating camera firmware

You can update the firmware for a camera registered below the Recording Server.

1. Select a model to update.
2. Click on the [ ... ] button to select the new Firmware to update.
3. Click on the **[Update]** button.
4. While it is updating, the progress bar indicates the progress.



# SSM configuration manager

## Managing Device Settings

You can import device settings from a file, or export it in \*.dat format.

### Importing Device Settings

You can import device's settings information from a file.

1. Click [ ... ] button to browse and set the desired file path.
2. Select a settings file.
3. Click [Import] button.
4. Imports the settings from the selected file.

- ☒ If checked <Including Network Settings>, imports network environment settings too.
- Importing for multiple devices is allowed, where exporting limits to one device at a time.




### Exporting Device Settings

You can save your device's settings information as a file.

1. Select desired device to export its settings.
2. Click [ ... ] button to browse and set the desired file path.
3. Click [Export] button.  
The settings are exported into a file, and its result is displayed as a message.



## Updating the Device Firmware

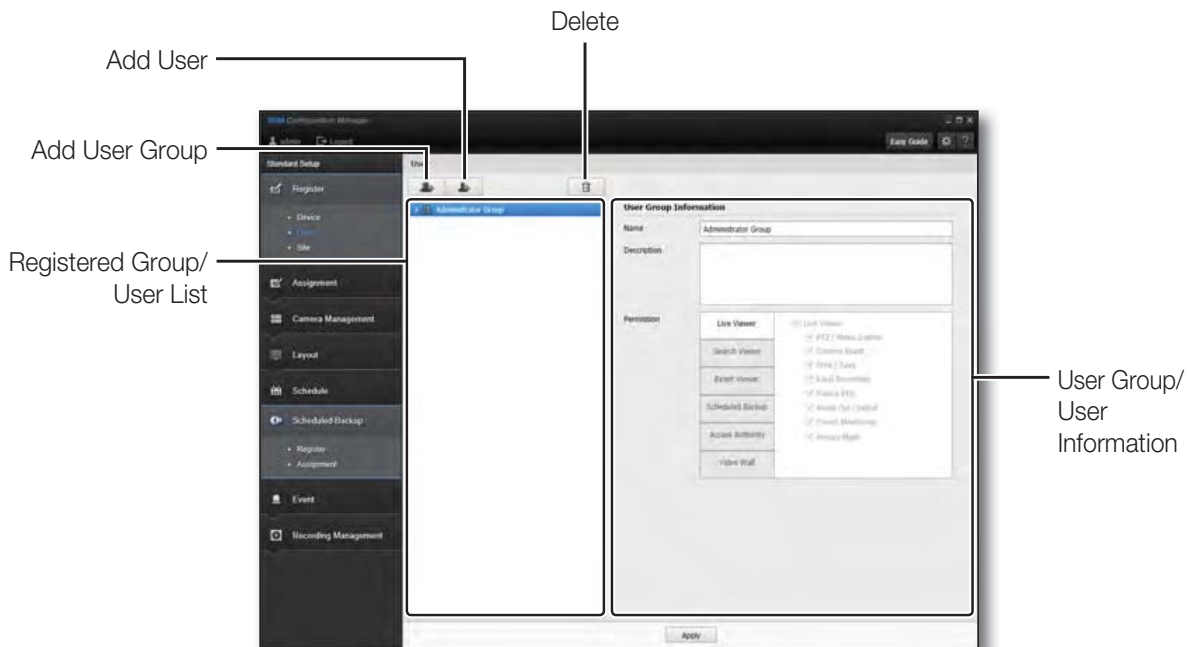
1. Select a device to update.
  2. Click [ ... ] button to select update software of newer version.
  3. Click **[Update]** button.
  4. During the updating, the progress bar shows the progress.
-  ■ Devices of the same model can be selected together from the list and updated at the same time.



# SSM configuration manager


## User

This function is used to generate the user group, set up the privilege of each user group, and add users to the group.

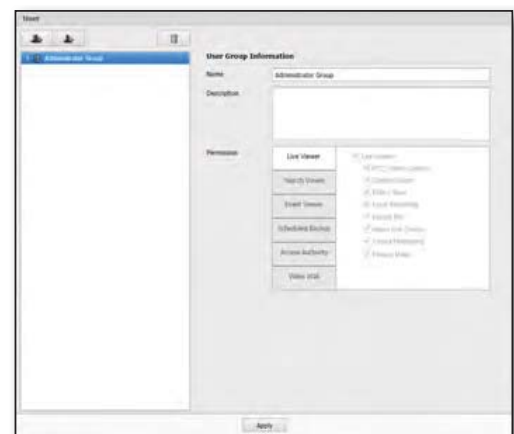


## Setting a User Group

To add a User Group:

1. Click the [  ] button.
2. After a user group is generated, enter the name and description in the info field on the right hand side and configure the privilege.
3. When done, click **[Apply]** button.

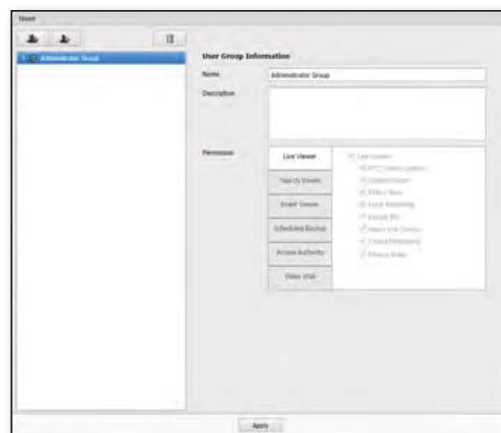
- ! The default "**Administrator Group**" is created in program installation process, which is not to be deleted.





### To edit User Group privilege:

1. Select a user group under a site from the tree.
2. Edit the user group's information on the right pane.
3. Select allowed privileges by checking checkboxes.
  - Live Viewer : Privileges can be set for each item selected to the Live page.
  - Search Viewer : Privileges can be set for each time selected to the Search page.
  - Event Viewer : Privileges can be set to the generated event.
  - Schedule Backup : Schedule backup privileges can be set.
  - Access Privilege : Accessible setting menu can be selected and set. The users in a group can access only the set menu.
  - Video Wall : Video wall privileges can be set.



- ! ■ For "**Administrator Group**", changing privilege is not allowed.
- Setting privilege is only available in user group information.
- Live Viewer is allowed by default, and cannot be disallowed.


4. When done, click [**Apply**] button.

### To delete a User Group:

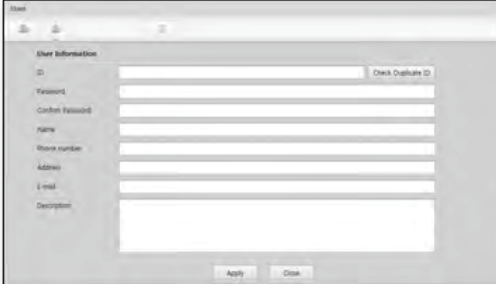
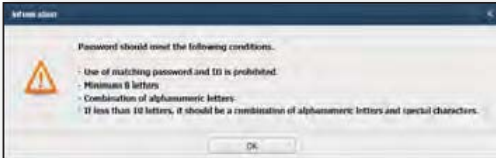

Select a user group to be deleted, and click [  ] button.

# SSM configuration manager

## To add a User:

1. Select a user group from the tree.
2. Click the [  ] button.
3. Enter the user information.
4. When done, click [Apply] button.

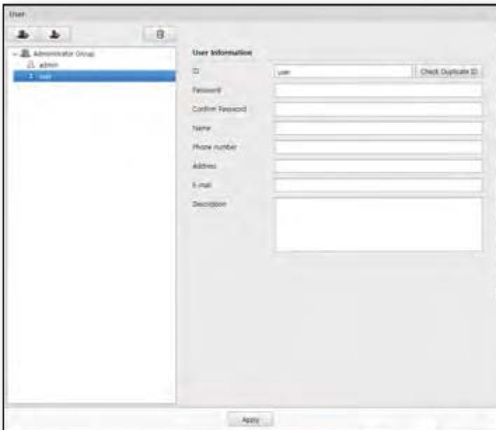
- The default "**admin**" account is created in program installation process, which is not to be deleted.
- When setting a password, if the password does not satisfy the basic criteria, another password satisfying the criteria must be input again.
- If the password satisfies the basic criteria but not the optional criteria, you can choose to use the currently input password as is or input a new one.

A dialog box titled "User Information" with a sidebar on the left containing fields: ID, Password, Confirm Password, Name, Phone number, Address, E-mail, and Description. The main area on the right has corresponding input fields. A "Check Duplicate ID" button is next to the ID field. At the bottom are "Apply" and "Close" buttons.A warning dialog box titled "Info: error" with a yellow triangle icon. It states: "Password should meet the following conditions." and lists: "Use of matching password and ID is prohibited.", "Minimum 8 letters", "Combination of alphanumeric letters", and "If less than 10 letters, it should be a combination of alphanumeric letters and special characters." There is an "OK" button at the bottom.A warning dialog box titled "Info: error" with a yellow triangle icon. It states: "Entered password has low security levels. To improve the security level of the password, the following conditions should be met." and lists: "Do not use three or more consecutive letters.", "Do not use four or more consecutive letter or numbers on the keyboard.", and "Do not use three or more repeated letters." It asks "Will you use the password entered?" and has "OK" and "Cancel" buttons at the bottom.


## To edit user:

1. Select a user from a user group in the tree.
2. Edit user ID, password, name and other fields on the right pane.
3. When done, click [Apply] button.

- The "**Administrator Group**" has all privileges, and users in the "**Administrator Group**" are allowed with all privileges accordingly.

A dialog box titled "User Information" with a tree view on the left showing "Administrator Group" and "admin" (selected). The main area on the right has input fields for ID, Password, Confirm Password, Name, Phone number, Address, E-mail, and Description. A "Check Duplicate ID" button is next to the ID field. At the bottom is an "Apply" button.

## To delete a user:

You can select users registered to a group to delete.  
Select a user to be deleted, and click [  ] button.

## Site

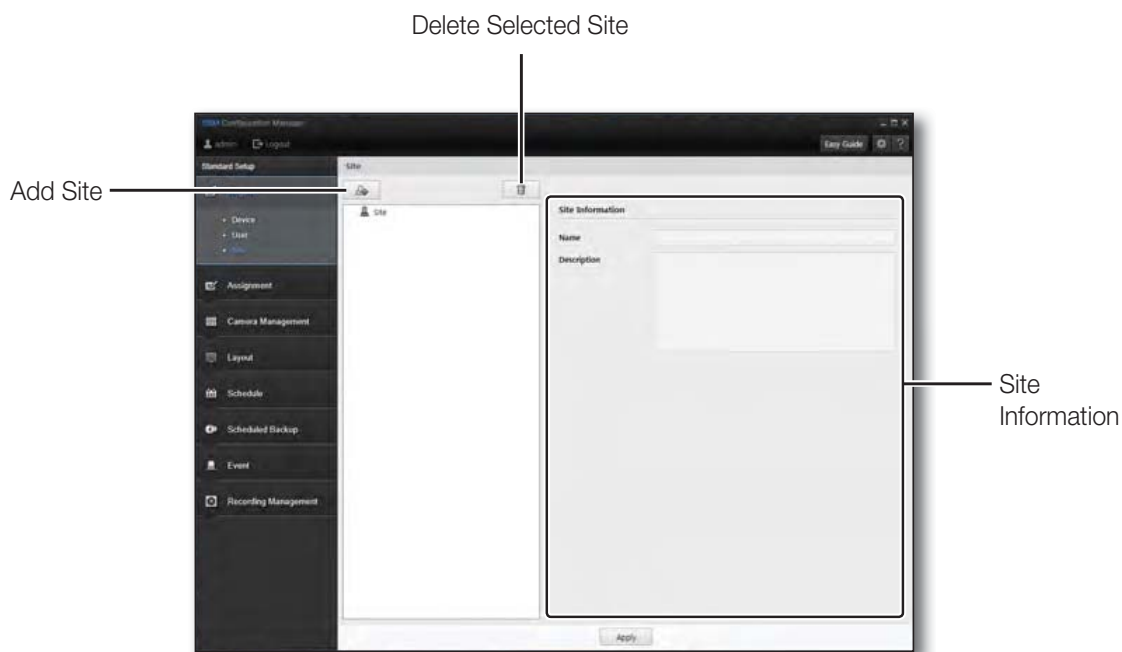
In SSM, user accounts are administered for each Site where a site is considered to be a physical administrative unit.

### Using Site

- Administration by locations grouped by Sites
- Permission management for viewer functions
- Site Management (Add / Edit / Delete)
  - Name, Description

### Managing Sites

In the logical tree, a site can group camera and alarm out by location and it can help easier locating desired camera if there are many camera devices.



- The default topmost site is created in program installation process, which is not to be deleted.

# SSM configuration manager

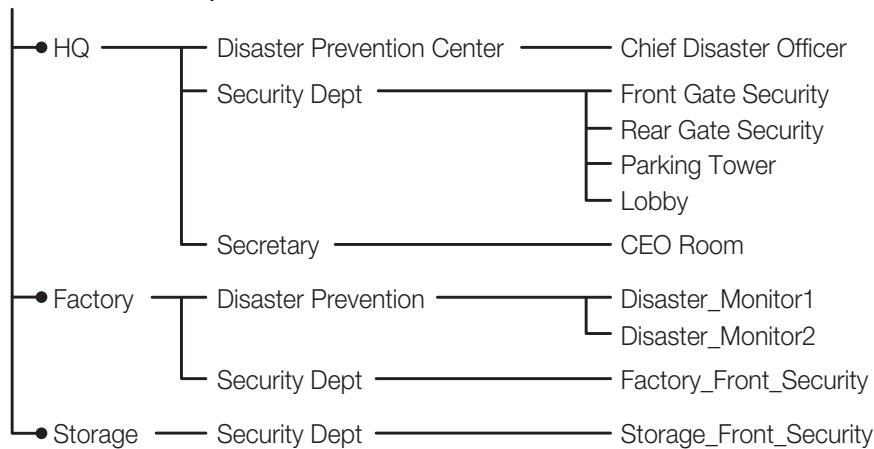
## Using Site/User Group

You can configure a site and user groups at your preference.

Ex.) Below sample construction shows sites of "HQ", "Factory" and "Storage", where each site includes user groups of "Disaster Prevention" and "Security Dept", and added with users of "Chief Disaster Officer", "Front Gate Security" and "Rear Gate Security".


### • Site

#### Administrator Group



## Setting a Site


### To add a site:

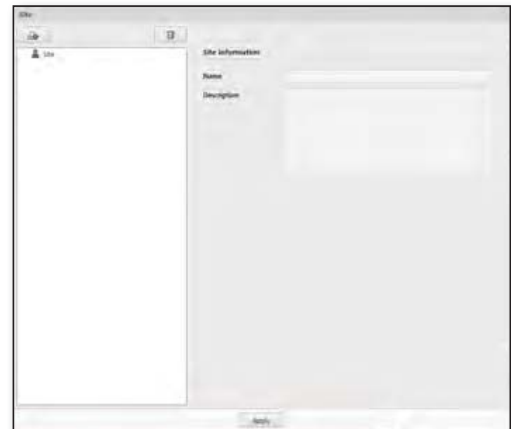
1. Click [  ] button.
2. Enter the site name and description in the right pane.

### To edit a site:

1. Select a site from the tree.
2. Edit site name and information on the right.
3. When finished, click **[Apply]** button.

### To delete a site:

1. Select a site from the tree.
2. Click [  ] button.

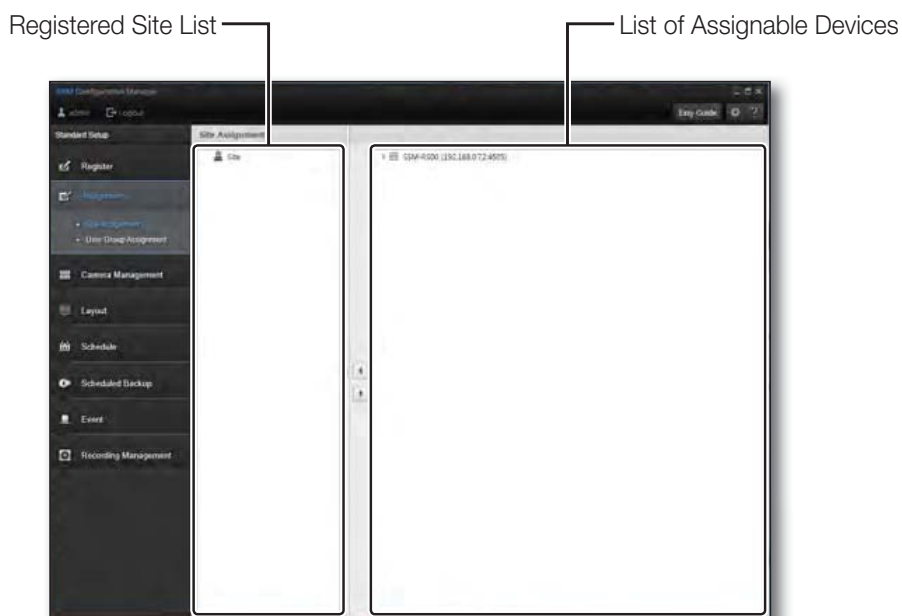


# ASSIGNMENT

## Site Assignment

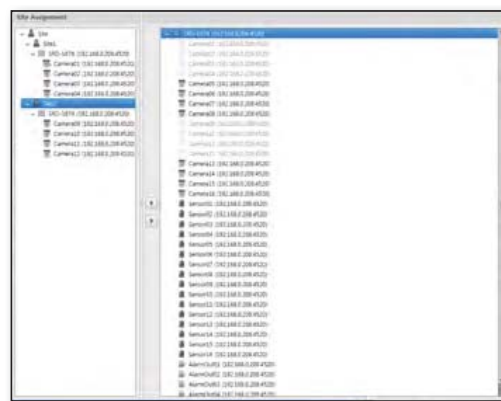
A device for the site is assigned.

A device can be selected and assigned to the site.



### To Assign Cameras to a Site

1. Select a site.  
The site must have been registered in **Register > Site**.
2. Select a device and camera for the site.  
To select multiple cameras, press the [Ctrl]/[Shift] key and then select the cameras.
3. Click the [ ◀ ] button after the camera(s) is(are) selected.
4. Select the device and then click the [ ▶ ] button to release the assignment.



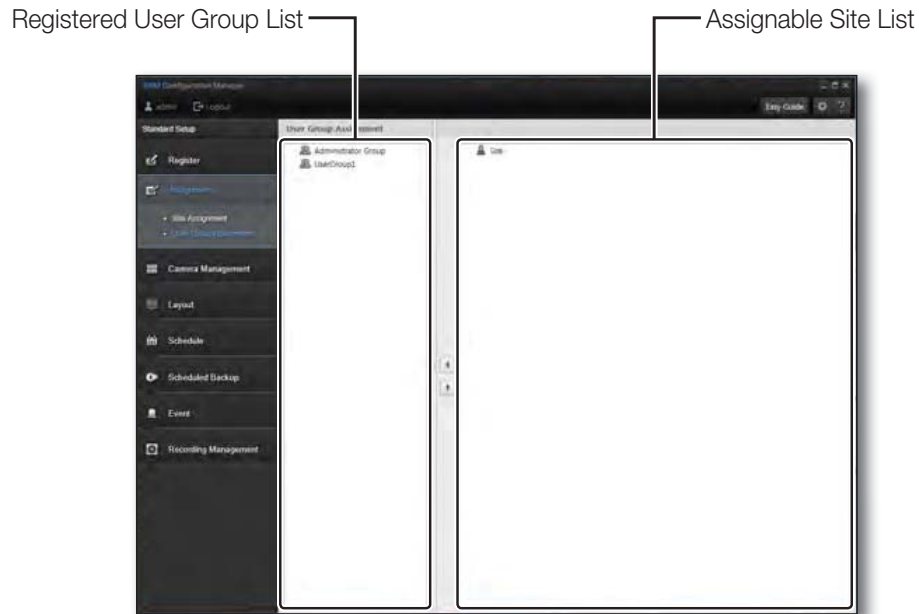
# SSM configuration manager

## User Group Assignment

A device registered in the site can be assigned to a user group.

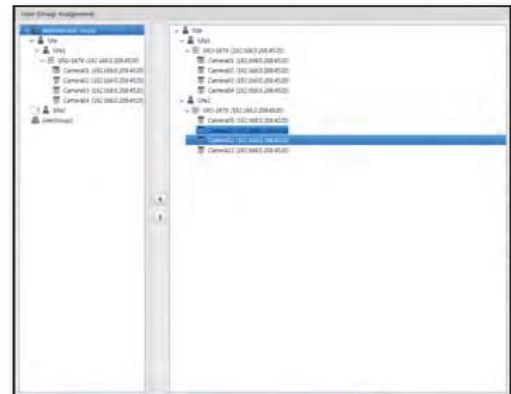
The list of devices assigned to the selected site is displayed.

A device can be selected and registered to the selected user of the group.



### To Assign a Device Registered in the Site to a User Group

1. Select a user group to assign the site.
2. Select a site or camera to be assigned from the site list. The list for selection displays only the cameras registered to the site, not all cameras connected to the device.
3. Click the [ ◀ ] button.
4. Select an assigned camera and then click the [ ▶ ] button to release the assignment.



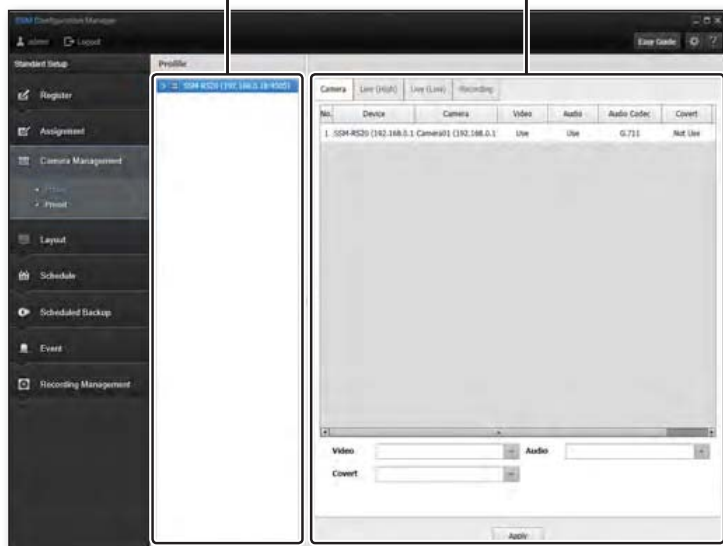
# CAMERA MANAGEMENT

## Profile

The profile of a camera assigned to the site can be checked and modified.

List of registered devices

Camera Profile List



## Camera

### Video

1. Click on the **<Video>** menu of a camera to change video settings.
2. Select either **<Used>** or **<Not Used>**.
  - If you set the camera's video to **<Not Used>**, you cannot listen to the live voice.  
If you set the camera's video to **<Off>**, audio will be turned off automatically.

### Audio

1. Select the **<Audio>** menu of a camera to change audio settings.
2. Select either **<Used>** or **<Not Used>**.
  - If you set the camera's Audio to **<Off>**, you cannot listen to the live voice.
  - You can set audio recording in **[Recording Management] > [Camera Setup] > [Camera]** tab.

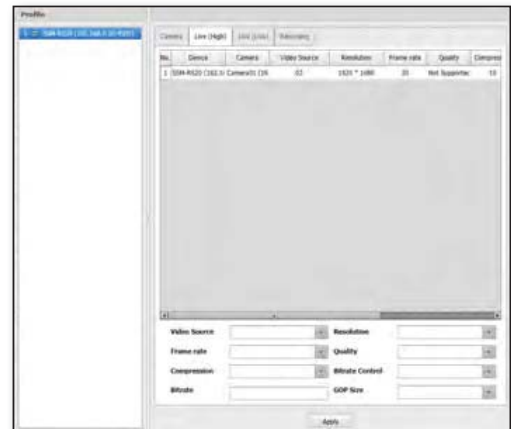
# SSM configuration manager

## Covert

1. Click on the **<Covert>** menu of a camera to change covert settings.
2. Check it.  
**<Covert>** will be turned **<On>**.
  - If you check **<Covert>** of a camera, you cannot view live/searched video or listen to voice, but you can still record video or voice.

## If you want to change the camera profile, high resolution, low resolution, and the recording profile

1. Select the camera whose profile is to be modified from the list of cameras registered to the site.  
The profile of the camera under the device can be set up, or the camera can be selected individually.
2. Select a camera to change the settings of from the list and select a changed value from the change item at the bottom.
3. To change the profile of the cameras in the list across the board, select the cameras using the **[Ctrl]** or **[Shift]** key in the keyboard and select the change value from the change item at the bottom.
4. Click the **[Apply]** button after the setup is complete.



- You can only set the recording profile for a camera registered in the Recording Server.
- You can set the Live (High), Live (Low) and Recording properties for each camera.
  - In Video Properties, there are Resolution, Tx Quality, Frame Rate, Compression, Bitrate Control, Bitrate and GOP size.
- A camera registered in DVR and NVR cannot be changed.



## Setting Presets

For PTZ control supporting cameras, you can add or delete preset positions for direct camera framing.



- The PTZ preset screen becomes available for settings, only when a PTZ supporting camera is selected.
- You can distinguish PTZ controllable cameras by icon appeared on the device list.
- According to the device, 20~255 presets are supported. Check the device specification for the maximum number of presets.
- A preset name can be set to a combination of letters and numbers up to 12 characters.



### If you want to add or delete a preset

1. Select a desired camera from the Device List to define a preset.
2. Use PTZ controller to set the camera framing to a desired point, and enter the preset name.
3. Click [ ] button.  
In the preset list, added one appears.
4. To delete a preset, select the preset to be deleted, and click [ ] button.
  - In the case of cameras that support Homeposition, Fish Eye or Panomorph, the Homeposition item is automatically added to the preset list, and the preset position moves to the set home position when Homeposition is set.



- For further information on PTZ controller, refer to "**PTZ Control**". (Page 104)



# SSM configuration manager

## Setting

This section describes the camera image compensation. This setting is enabled only for the cameras registered with the SUNAPI protocol.

- Backlight compensation : the backlight compensation mode supports the level setting only when the WDR mode is set.
- Daytime/nighttime mode : Color, BW, auto, external BW and schedule can be selected.
- Simple focus : The auto focus is activated whenever the button is clicked.
- Focus : The focus is adjusted by setting the speed with the combo box. It can be set to 1, 10 or 100.
- Zoom in/out : A ratio is set from a combo box to enlarge or reduce the display by the set ratio. It can be set to 1, 10 or 100.
- P-Iris : The iris is opened by the set value to adjust the light exposure in the box or dome camera.  
The level can be set by adjusting the slide or inputting a specific value.  
The amount of light increases and the screen becomes lighter as the level increases.




### To set the Masking

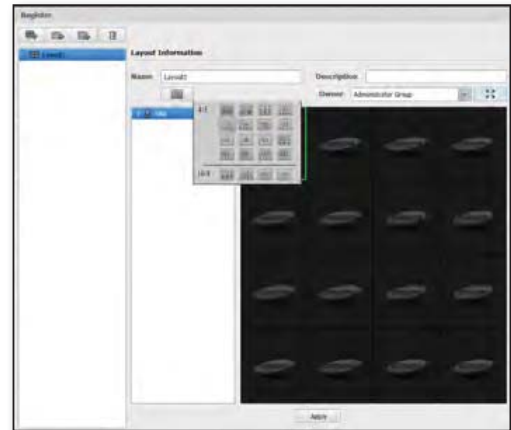
1. Move to SSM Configuration Manager > Camera Management > Preset.
2. Click the Masking setting button and set the masking on the screen.
  - Click the beginning point and end point of the masking rectangle to set the mask rectangle.
  - Up to 8 masking settings are allowed.
3. Move to SSM Configuration Manager > Registration > User.
4. Set the privilege of mask output in Live and Search.
5. The mask set to Live or Search is output according to the privilege.



# SSM configuration manager

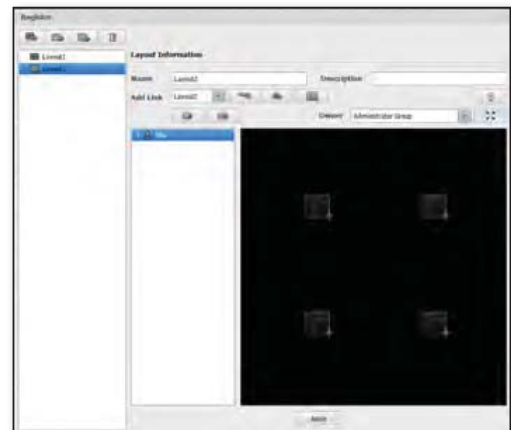
## To add a camera layout:

1. Click the [  ] button to generate the camera layout.
2. Click [Split Screen] button and select a desired layout split mode.
3. Drag a desired device from the device list, and drop in onto a tile.  
Double-click a camera to add it to the layout. Double-click a system to add all cameras in the system to the layout.
4. When done, click [Apply] button.




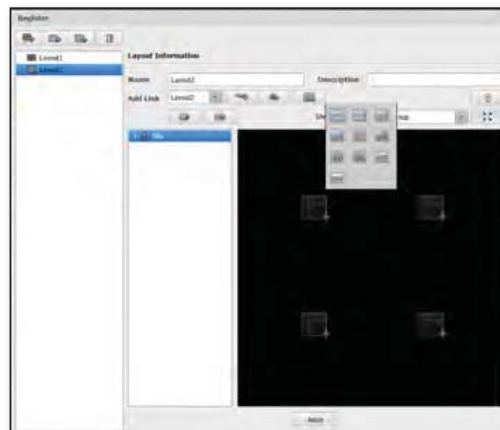
## Map Layout



Place the camera and sensor icon in the position on the image of the registered map to complete the layout.

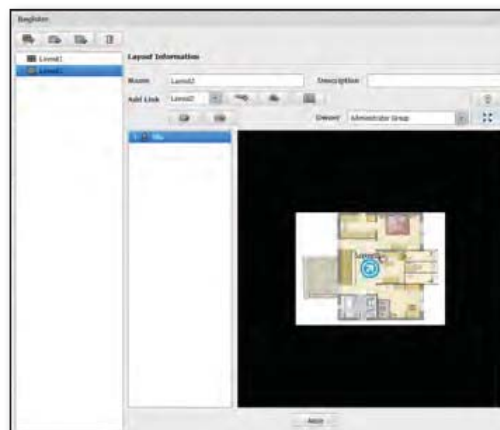


### To add a map and place links:

1. Select a user group to be added with a map layout, and click [  ] button to create one.
2. Select a newly-generated map.
3. Click [Split Screen] button and select a desired layout split mode.
  - In the split screen selection pane, the tile marked with sky blue is the destination tile of added map image.



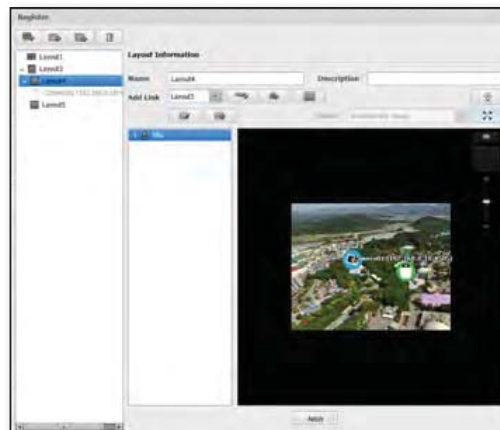
4. Click [  ] button to browse and set the desired map image file.
5. Select a layout in <Add Link> and click the [  ] button.





6. The link icon is registered in the map. Click the icon in the map layout of live viewer to move to the selected map link.

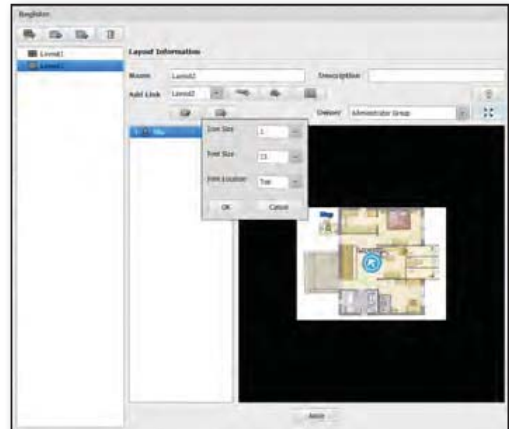


- Place mouse cursor on the top right corner of the map layout to display screen adjustment dialog. For further details screen adjustment on map layout, refer to "Layout". (Page 94)



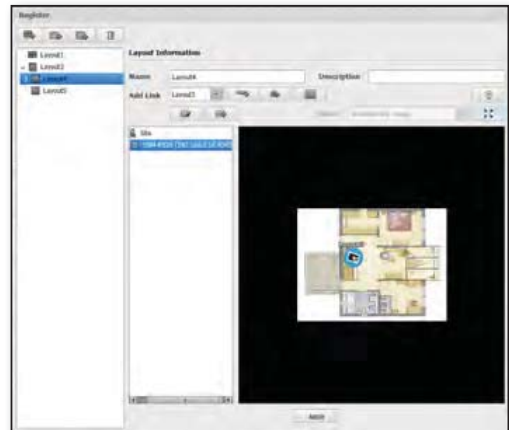
# SSM configuration manager

7. If you want to change the size/location of an icon, click on the [  ] button.  
You can change the icon size and the font size and location.
8. If you want to add a user icon, click on the [  ] button.
  - You can set the icon name. (32 Korean letters, 64 Roman alphabet letters)
  - You can designate the file to be used for the icon. (jpg, bmp or png format and size of less than 50Kbytes.)
  - Click the right side of the icon and select "Image change" to change the image of the icon.



## To add devices to a map:

1. Once completed with adding a map, click devices to be added from the device list.
  - In the device list, devices included in the group to where the layout is registered.
2. Click a device and drag it onto the desired position on the map, and release the mouse.  
You can add any device of camera, alarm or sensor.
  - Camera
    - You can distinguish cameras, and identify whether the camera is connected to the network.
    - You can identify cameras with events.
    - The camera name is identified in the live viewer.
    - The camera information is displayed in the live viewer.
  - Alarm Out
    - You can distinguish alarms, and identify whether the alarm device is connected to the network.
    - You can identify alarm device names.
    - You can turn on or off Alarm Out in the live viewer.
3. Click device icon with your left mouse button.  
Green ball that controls camera framing appears.

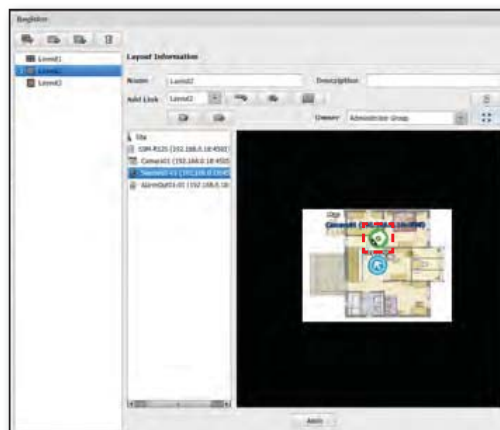


4. Click the green ball, and it turns red. While in red, drag and drop the ball to adjust camera's viewing direction.
  - Click a camera, drag and drop while holding to move the camera's position.




- "Refer to **"Using Map Layout"** on how to use the arrow keys." (Page 96)

5. When done, click [Apply] button.



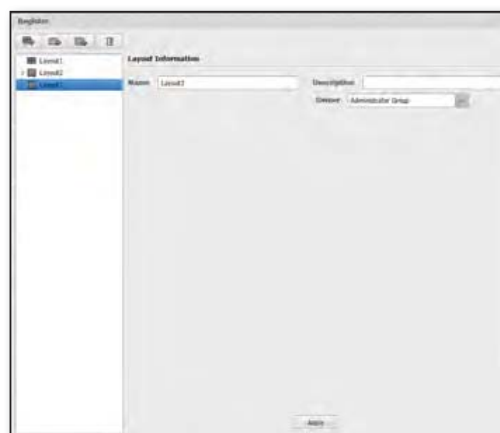
### If you want to add a layout group

Add a layout group that can be used to group map layouts.

1. Click on the [  ] button.
2. Enter the name and description in the layout information filled on the right side.



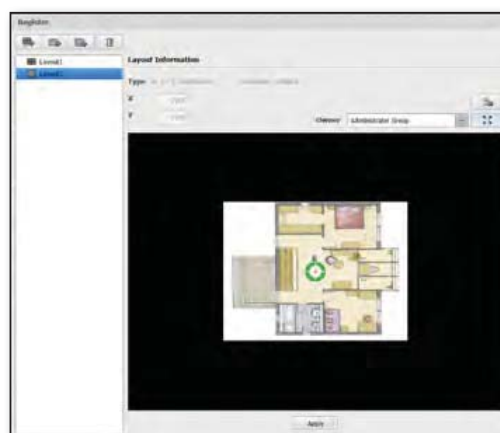
- A map layout group can be added regardless of the existence of camera/map layout, but an existing map layout cannot be moved to the lower level of a map layout group. When a map layout is created after a created map layout group is selected, the map layout is located at the lower level of the map layout group.
- You can add a map layout below a layout group. If a layout group is deleted, its sub map layouts will be also deleted.



### Layout coordinate settings

Click on the [  ] button to set the layout coordinates.

- A coordinate is displayed as three points on the map. When you set a coordinate, enter the reference coordinate value for each point.
- The range of layout coordinate input is shown as follows.
  - X/Y coordinate system  
X : 0 ~ 10000, Y : 0 ~ 10000
  - Longitude/latitude coordinate system  
Longitude - East/West, deg: 0 ~ 180, min : 0 ~ 59, sec : 0 ~ 59 (first decimal point)  
Latitude - North/South, deg: 0 ~ 90, min : 0 ~ 59, sec : 0 ~ 59 (first decimal point)



### Deleting Layouts

Select layout to be deleted, and click [  ] button.

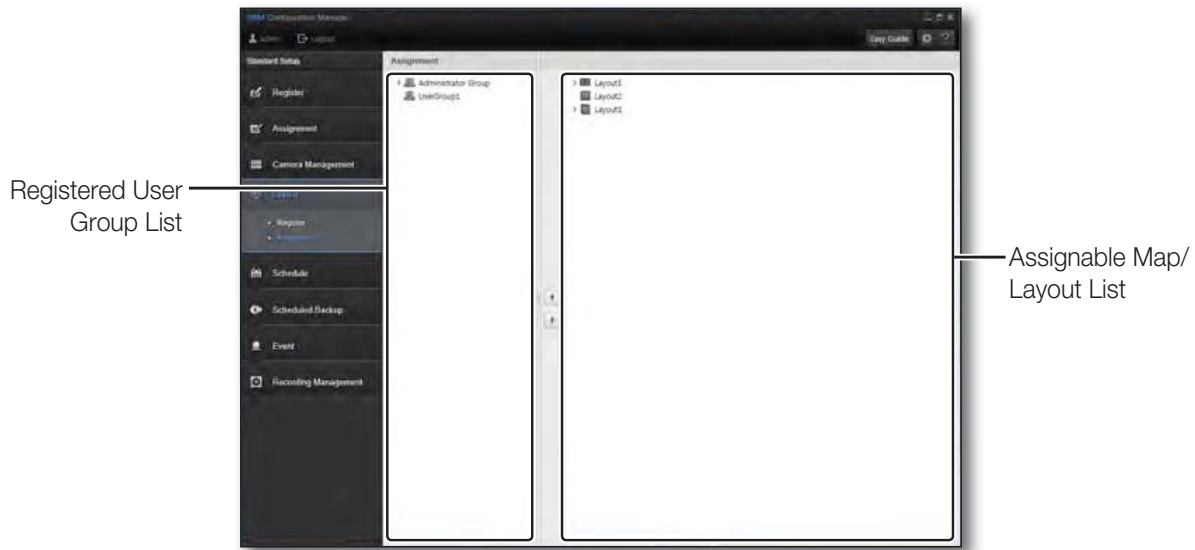
# SSM configuration manager

## Layout Assignment

A layout is assigned to the user group.

A list of layouts available to the selected user group is displayed.

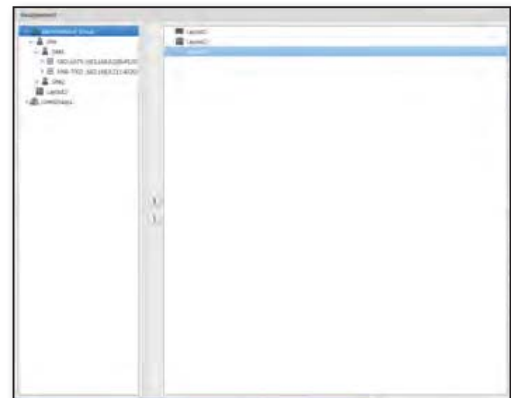
Select a layout and register it to the user group.



### To Assign Cameras

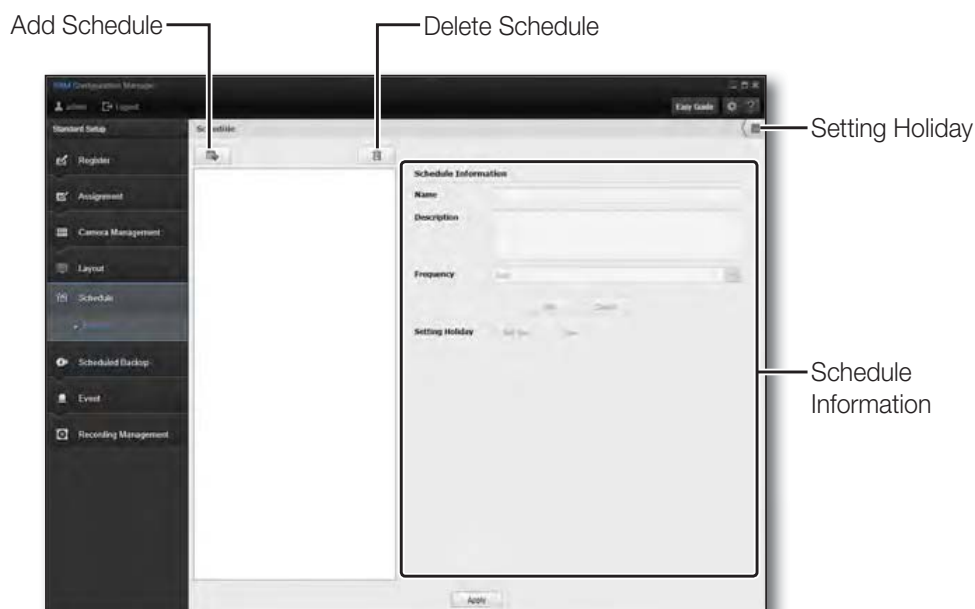
1. Select a user group to assign the layout.
2. Click to select a layout to assign from the layout list.
3. Click the [ ◀ ] button.
4. Click the [ ▶ ] button to release the assignment.

- After a layout assigned to the user group has been selected, another layout under it can be assigned.
- The layout can be allocated only when a user who has ownership logs in.




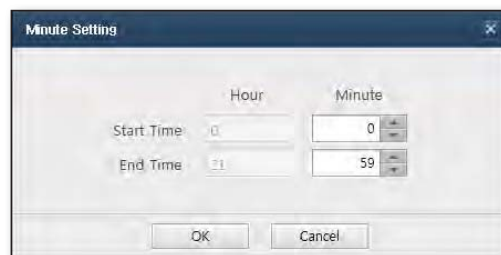
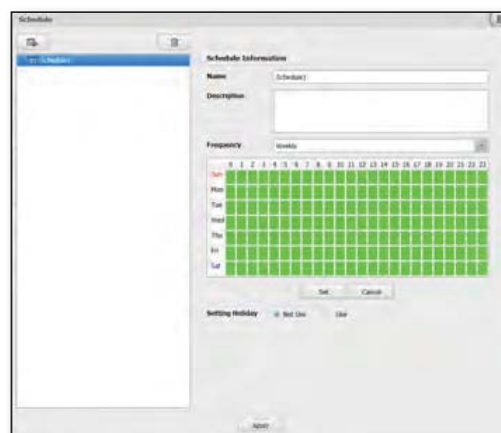


## SCHEDULE SETUP




### To Set up a Schedule

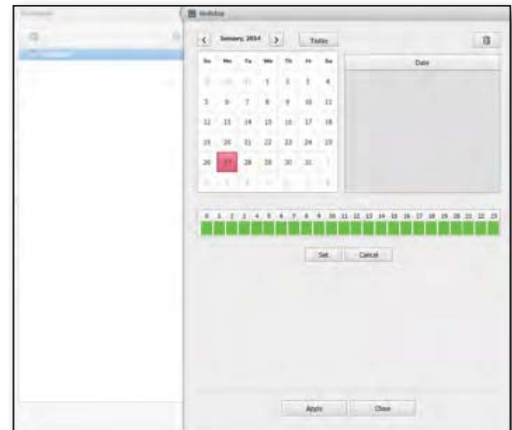
1. Click the [  ] button.
2. Select the generated schedule.
3. Enter the <Name> and <Description> in the list on the right hand side.
4. Select <Frequency>.
  - Daily : The schedule is set up in one-day units.
  - Weekly : The schedule is set up in one-week units.
5. Select a schedule area from the time selection cell, drag it with the mouse, and click the [Set] button.  
To cancel the schedule, drag the area and click the [Cancel] button.
  - Multiple time cells can be selected by using the [Ctrl] key.
6. Double-click the time selection cell and then select the minutes of <Start Time> and <End Time>.
7. Select whether the holidays will be used.
8. Click the [Apply] button after the setup is complete.




# SSM configuration manager

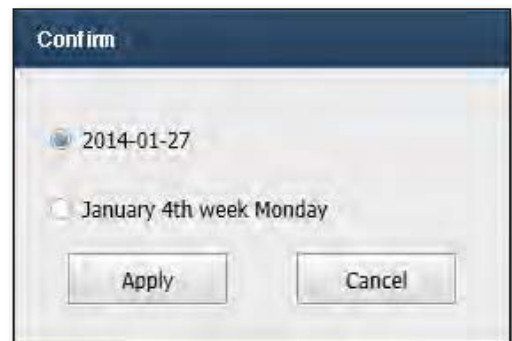
## To Set up Holidays

1. To use holidays, select **<Use>**.
2. Click [  ] in the upper-right corner.




3. Select the dates that are holidays, and indicate the type of holiday.
4. Click the schedule area in the time selection cell, drag it with the mouse, and click the **[Set]** button.  
To cancel the schedule, drag the area and click the **[Cancel]** button.
5. Double-click the time selection cell and then select the minutes of **<Start Time>** and **<End Time>**.
6. Click the **[Register]** button after the setup is complete.

-  ■ Holiday setting is set at higher priority when **<Setting Holiday>** is set to **<Use>** in schedule setup.

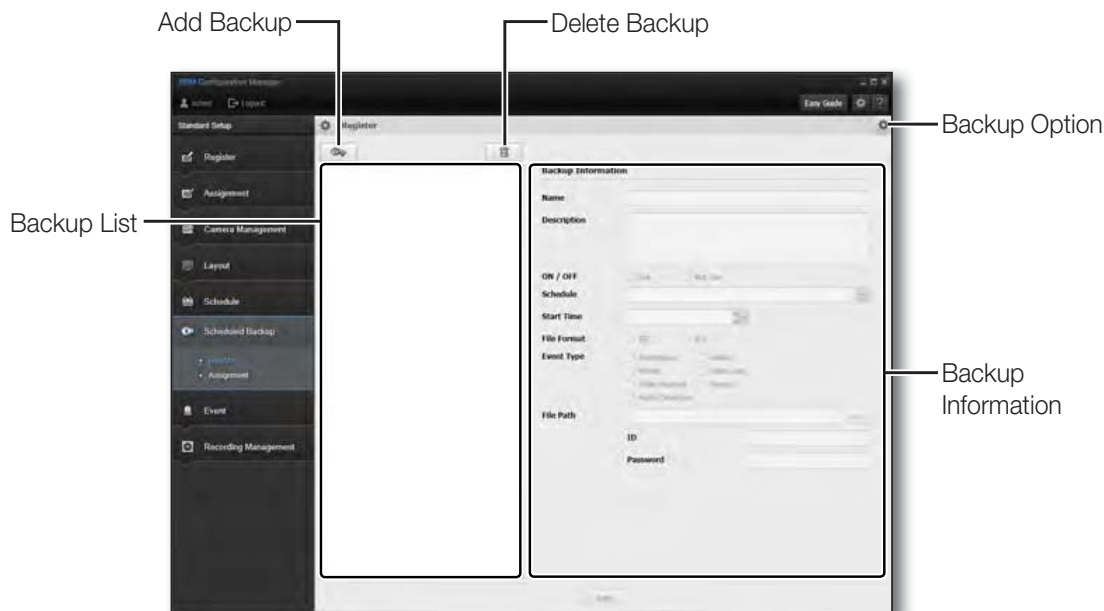


## To Delete Schedule

1. Select the schedule to delete from the schedule list.
2. Click the [  ] button.
3. Click the **[Apply]** button after a schedule is deleted.


## SCHEDULED BACKUP

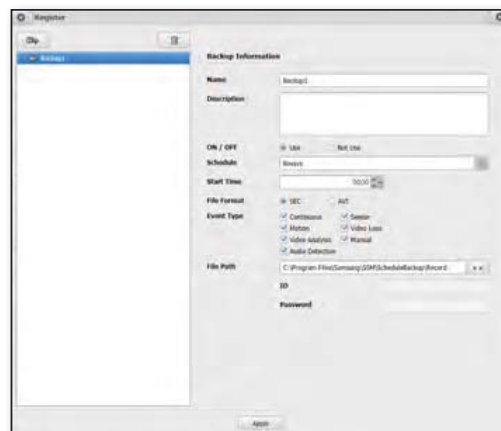
The data of a specific period can be saved in the PC running the program.



### To Set up Video Backup

The specified event backup can be set up to run at the specified time.

1. Click the [  ] button.  
A new backup is added to the list.
  - Only the connected devices can be backed up.
2. Click a backup from the list to select it.
3. Enter the name and description of the backup to set up.
4. Select whether the backup will be used.
5. Select a schedule.  
One of the schedules registered in schedule setup can be selected.
6. Set up the backup time.
  - If the schedule is set to <Weekly>, the day of the week selection menu is displayed.
  - If the schedule is set to <Daily> and the backup schedule is set up for within 24 hours from the time selected as the backup start time, the backup begins with the data of the previous day.



# SSM configuration manager

7. Select the format of the saved file.

“\*.sec” and “\*.avi” are available as the backup file format.

- AVI : General purpose format. This can be played by Window Media Player.
- SEC : Samsung’s own format. Player is provided with the video data.



- Window Media Player does not support avi files with a resolution of 3 megapixels or higher. SEC backup is recommended for high-resolution videos of 3 megapixels or more.

- A new AVI backup file is created in the following cases.

- When you change the video’s resolution
- When you change the audio or video codec
- When the file size is greater than 2GB

8. Select the event type to run a backup.

9. Click the [ ... ] button to select the path of the backup file.

- Input the ID and password to login to the NAS drive.
  - If the following popup window is displayed, check the input NAS account or disconnect the previous network connection and try again.



10. Click the [Apply] button after the setup is complete.

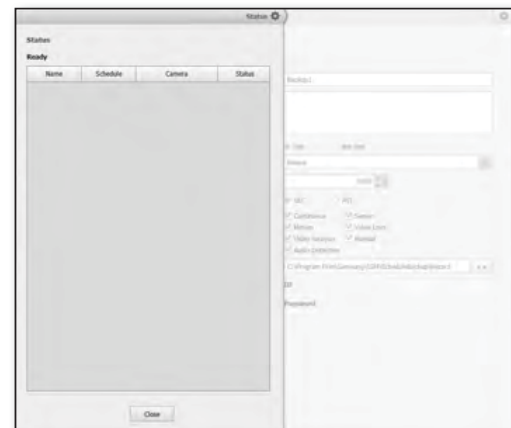


- The following popup window is displayed if the Windows login account is not set. The Windows login account can be set in the backup option (page 65).




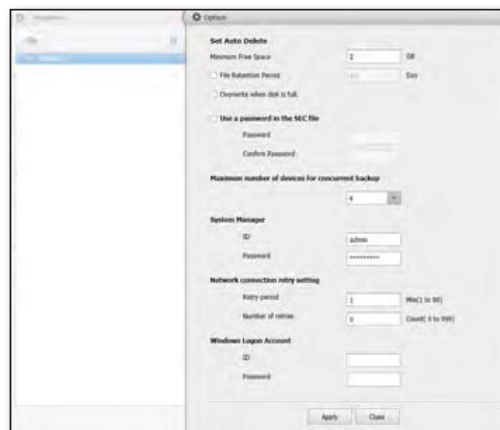
## To Check Scheduled Backup Status

1. Click the [ ⚙ ] button in the upper-left section of the screen.
2. Check the progress of the registered backup.




## To Set up a Backup Option

1. Click the [  ] button in the upper-right section of the screen.
2. Specify the automatic backup file delete capacity and period.
  - Minimum Free Space : Configure the minimum free space.
  - File Retention Period : Configure the automatic delete period.  
Data recorded prior to the specified period are automatically deleted.
3. Check to use the password in the <Use a password in the SEC file> menu.  
Set or check the password after checking use.
4. Select the number of devices to be backed up at the same time in <Maximum number of devices for concurrent backup>.
5. Configure the Configuration Manager login ID and password.
6. Set the interval and count in <Network Connection Retry Setting>.
  - It specifies how many times the reconnection will be attempted and the interval (min.) when the connection to a NAS drive is cut.
7. To schedule the backup through NAS, input the Windows account to be used by the schedule backup.
8. Click the [Apply] button after the setup is completed.



- Only the ID with the scheduled backup privilege can use the scheduled backup.

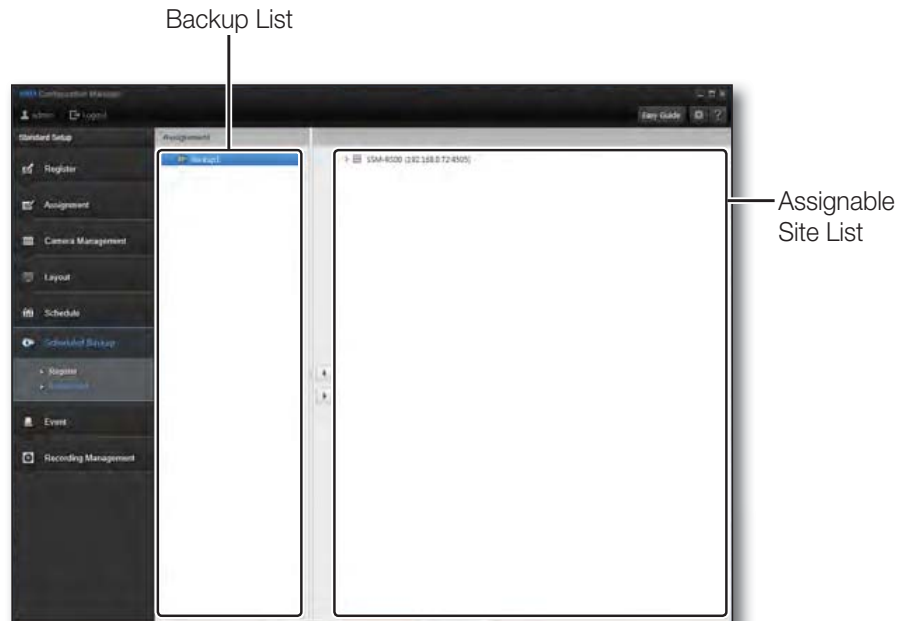
## To Delete a Scheduled Backup

1. Select the scheduled backup to delete from the backup list.
2. Click the [  ] button, and then click the [OK] button in the confirmation window.
3. Click the [Apply] button after the scheduled backup is deleted.


# SSM configuration manager

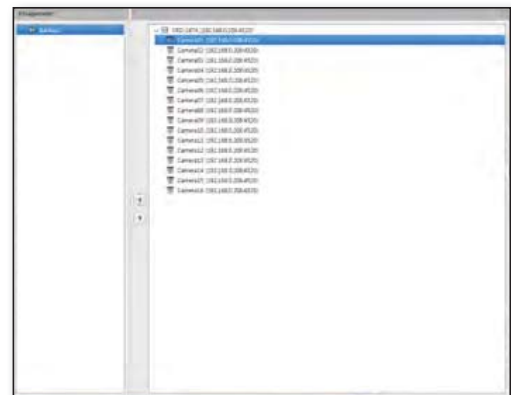
## Device Assignment

A device is selected and assigned to the scheduled backup.  
A device can be selected to be assigned to a scheduled backup.



### To Assign a Device

1. Select the backup schedule to assign to the camera.
  2. Click to select a device to be assigned from the device list.
    - Cameras connected to the device can also be individually assigned.
  3. Click the [ ◀ ] button.
  4. Click the [ ▶ ] button to cancel the assignment.
-  Only the devices assigned to the account set up in the scheduled backup option can be backed up.

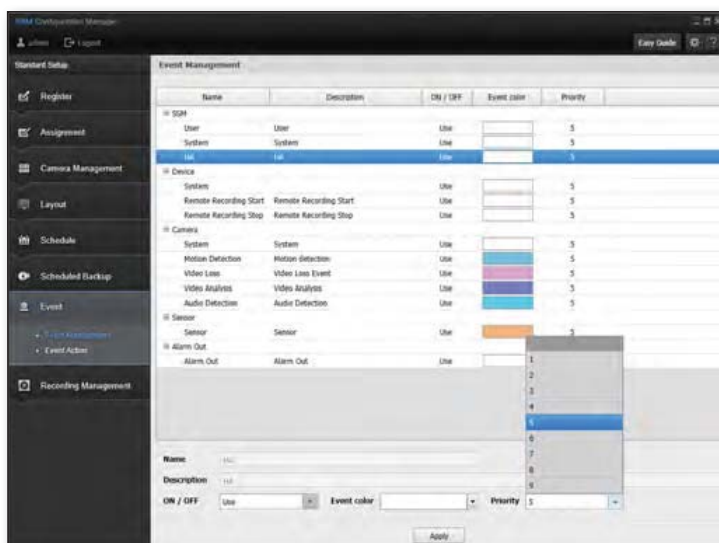


## EVENT

The event action defines how the system acts (output) upon a specific event (input).

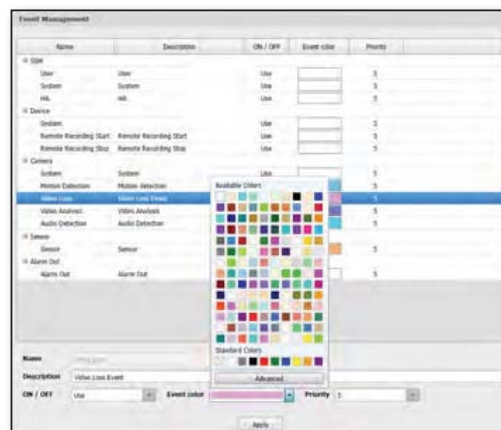
### Managing events

You can select to display events that occur, and set the color for an event that occurs.



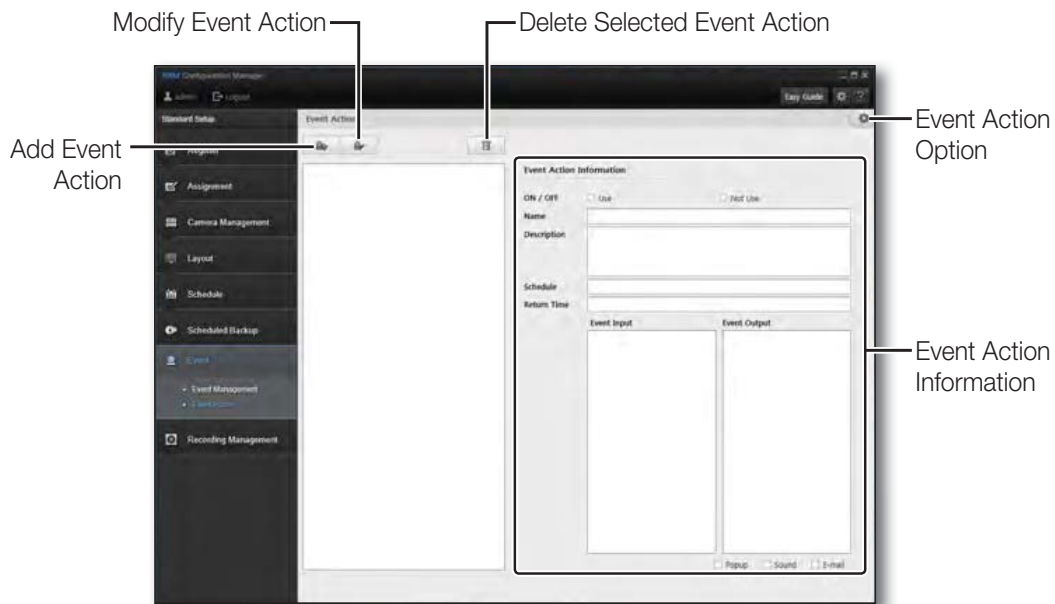
#### To set the event color

1. Select an event to set the color for.
2. Select whether to use the information displayed in the bottom.
3. Click on the **<Event color>** menu.
4. Click on the desired color in the color chart displayed.
5. After finishing settings, click on the **[Apply]** button.
  - If the event color is set, it is applied to the event log of the viewer and border of the camera image window.



# SSM configuration manager

## Setting Event Action





- Event Settings
  - A single monitoring setting. Upon an event, the Live Viewer monitoring screen automatically switches to Single mode with the event-generating channel for the specified period.
  - For specified interval (5~60 seconds), system ignores the same continuing event.
  - You can set whether to use the device's event settings.
- Event Action
  - Event Action Management (Add / Edit / Delete)
    - Name, Description, Event (Input), Action (Output)
  - You can define various system actions (output) for events (input) from devices.
    - Event (input) types: Device connection release, Motion Detection, Video Loss, Video Analysis, Audio Detection and Sensor
    - Action (output) types: Instant Viewer, Preset, Alarm Out, Pop-up, Sound and E-mail notification



### To add an event action:

You can add/edit event actions.

Select event type, device of action, and specify action details accordingly.

1. Click the [  ] button to add an event action.
2. Select an event action and click the [  ] button.  
The "Event Action" setup window appears.
3. Use <ON/OFF> to determine the use of this function.
4. Enter the name and description of the event action added.
5. Select the usage and event action schedule.
6. Select the return time.
7. In the <Event Input>, select devices and their event types by checking the checkboxes.

#### HA Event

- No Standby Client : The HA client (standby) does not exist at the time of fail-over request.
- Standby Client Broken : The HA client (standby) is in an error condition at the time of fail-over request.
- Fail-over Successful : The fail-over is established successfully.
- Fail-over Failed : The fail-over failed.
- Fail-back Successful : The fail-back is established successfully.
- Fail-back Failed : The fail-back failed.



#### Device Event

- Video Loss : If the video recording is interrupted, an event is generated.
- Motion Detection : If the device detects a motion, an event is generated.
- Passing : An object passing through the area specified by the user is recognized as an event.
- Entering : An object entering the area specified by the user is recognized as an event.



# SSM configuration manager

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- Appearing/Disappearing : Object appearing in or disappearing from the specified area is recognized as an event.
- Tampering : A situation hindering the video monitoring is recognized as an event.
- Tracking : Recognize the situation of tracing moving objects on the screen as an event.
- Face Detection : Recognize the situation of sensing a face in the user selected area as an event.
- Video Analysis : Intelligent video analysis is recognized as an event.
- Audio Detection : If the device detects sound, an event is generated.



- If you selected an upper ranked device that you registered a camera for, events related to device operation will be displayed.

## 8. Set the action device and action method of an event type.

- Instant Viewer : Opens the "**Instant Viewer**" window in the Live Viewer, which shows the occurred event's video.
- Preset : Runs selected preset on the selected camera.
- Tour : The tour of the selected device is performed in the case of an event.
- Swing/Auto Pan : The swing/auto pan of the selected device is performed in the case of an event.
- Group/Scan : The group/scan of the selected device is performed in the case of an event.
- Popup : Automatically selected along with Instant Viewer option. If selected individually without selecting Instant Viewer, an empty Instant Viewer having no video displayed upon an event only for reacting to the occurred event.
- Sound : Generates sound alarm upon events.
- E-mail : Sends out event notification e-mail upon events.
- Auto broadcasting music source : Search for and select and preview the music file to be played when an event occurs.


## 9. To finish settings and close the window, click **[Apply]** button.

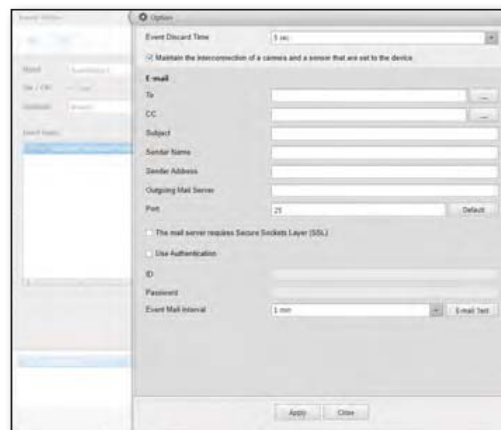
### To delete an event action:

Select an event action to be deleted, and click [  ] button.

## To Set up Event Option





The ignore time and e-mail send time options of the event action can be set.

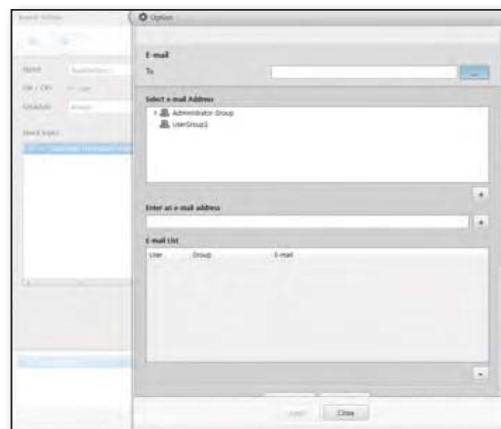
1. Click the [  ] button.
2. Specify the event ignore time.
3. Specify whether the device event action setting will be used.
4. Enter the recipient and sender e-mail addresses and e-mail sending interval when an event is generated.
5. Click the [Apply] button after the date input is complete.



## To Select an e-Mail Recipient or CC

Recipient and CC of the event e-mail can be selected from the user group list, or their e-mail addresses can be input.

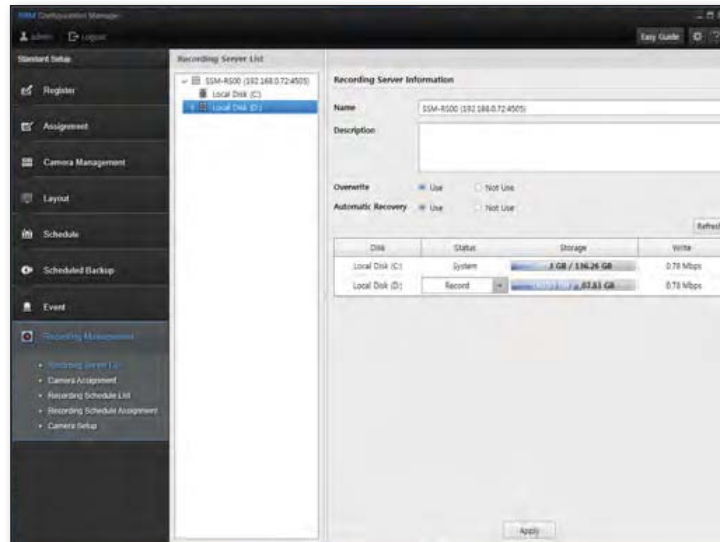
1. Click the [  ] button.
2. Click the [  ] button to the right of the <To> or <CC>.
3. Select the recipient of the e-mail from the users in the user group.
4. Click the [  ] button.  
The e-mail address of the recipient selected from the e-mail list is displayed.
5. To register the e-mail address of the user not in the user group, enter the address in <Enter an e-mail address>.
6. Click the [  ] button.
7. Click the [Confirm] button after the recipient and CC are selected.



# SSM configuration manager

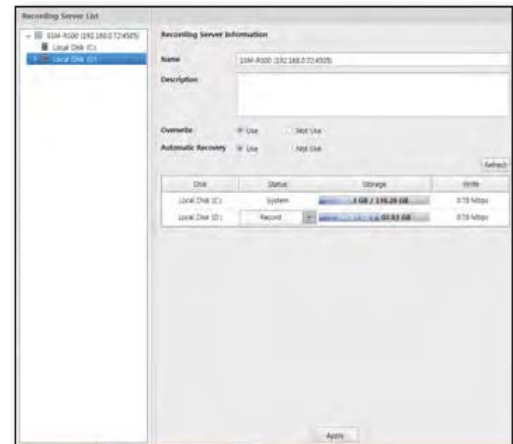
## RECORDING MANAGEMENT

### Recording Server list



#### To set the Recording Server information

1. Overwrite : If there is no extra disk space, select whether or not to overwrite the recording file.
2. Auto recovery : If you record it in network external storage (iSCSI), select whether to auto recover the recording when a storage connection is cut off and stored again.
3. Recording Server disk information settings : Shows the disk information of the selected Recording Server.
  - Record : When the disk status is set to **[Record]**, you can search for and play the recording.
  - Restore : If the disk status is **[restore]**, the recording data can be restored in the case of HA fail-back.
  - Released : When the disk status is set to **[Released]**, you can search or play only but cannot record. Any ongoing recording will be stopped.
  - You cannot allocate a **[System]** disk where the OS is installed.
  - You cannot record if there is no **[Record]** disk as well as the **[System]** disk.
4. Refresh : Click on the **[Refresh]** button to update the local disk information with the latest information.

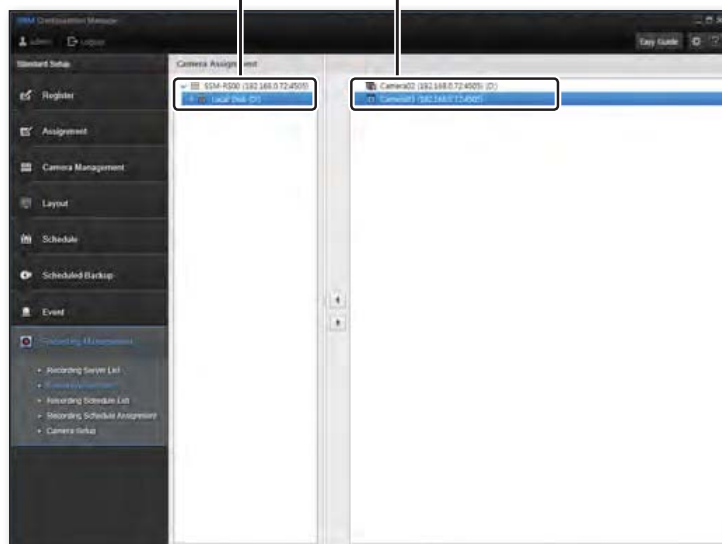


## Camera Assignment

You can distribute camera to each **[Record]** disk of the Recording Server.

List of registered recording disks

List of allocatable cameras

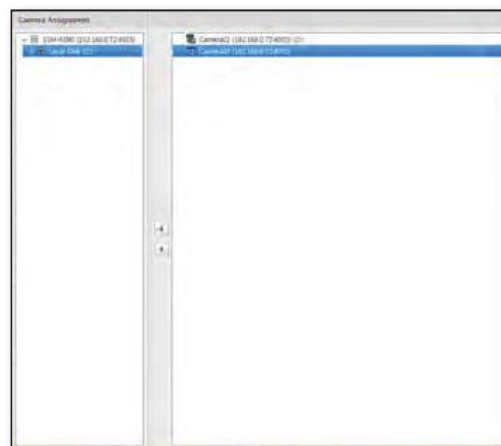


If you want to assign a camera to the **[Record]** disk

1. Select the Recording Server to initialize.
2. Select the **[Record]** disk to assign a camera to.
3. In the list of cameras registered in the Recording Server on the right, select a camera to be assigned to the disk.
4. Click on the [ ] button.  
The selected camera will be copied below the **[Record]** disk.  
You can assign the same camera to multiple disks.
  - You cannot record with a camera not distributed to the disk.

If you want to cancel assigning a camera to the **[Record]** disk

1. Select the Recording Server from the list on the left..
2. Select an item to cancel from the list of cameras registered within the **[Record]** disk.
3. Click on the [ ] button.  
The selected disk will be deleted from the **[Record]** disk.



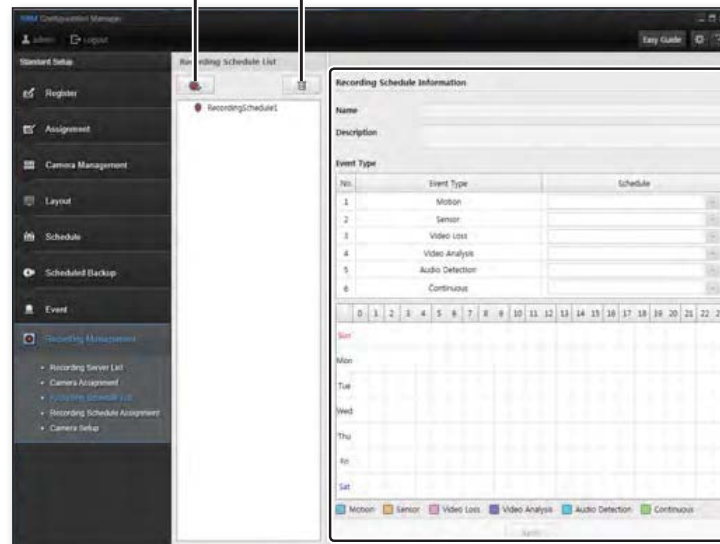
# SSM configuration manager

## Recording Schedule List

You can create, modify or delete the recording schedules.


Add a recording schedule

Delete a schedule




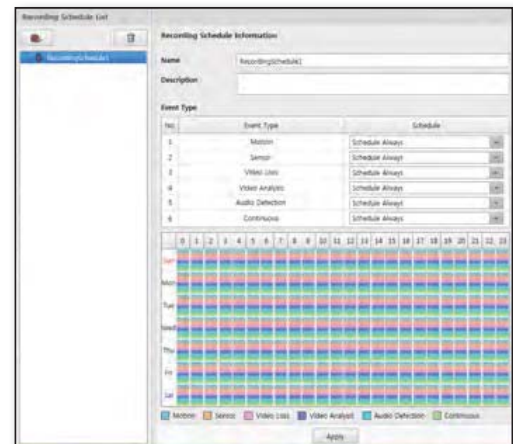
Recording schedule information

If you want to set the schedule

1. Click on the [  ] button.
2. Select a created schedule.
3. In the list on the right of the screen, enter <Name> and <Description>.
4. Select a schedule for each event type.
  - Schedule Always : Recording will be done on every day/time.
  - For more detailed information on schedule setting, refer to "Schedule Setup". (Page 61)
5. Click the [Apply] button after setup is completed.

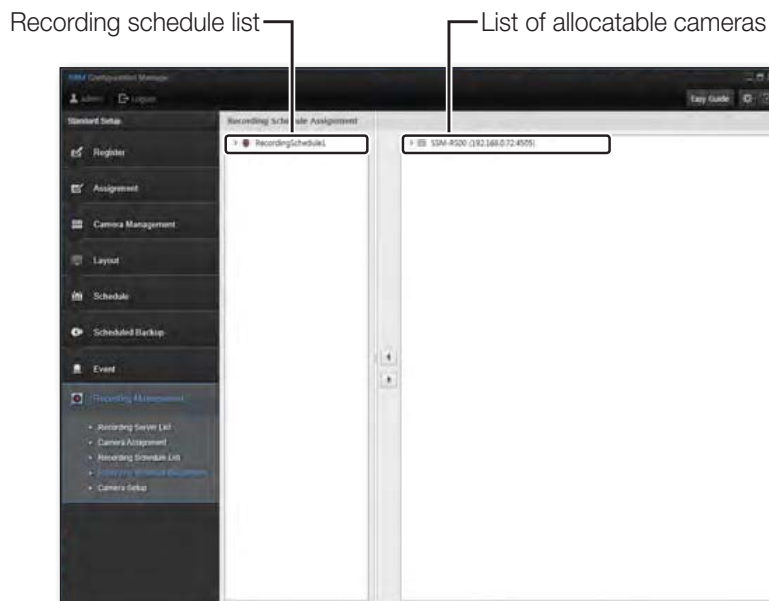
If you want to delete a recording schedule

1. Select a schedule to delete from the schedule list.
2. Click on the [  ] button.
3. Click the [Apply] button after deleting it.



## Recording Schedule Assignment

You can distribute a camera for each Record disk of the Recording Server.

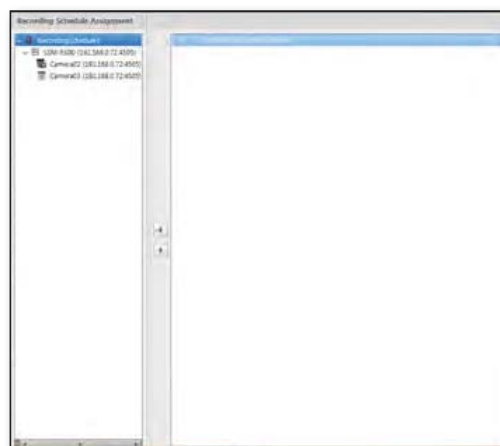


If you want to assign a camera to the recording schedule

1. Select a user recording schedule to which a camera will be assigned.
2. Select the Recording Server or camera to assign from the list of camera/Recording Servers on the right side of the screen.
  - If you select a Recording Server, the list of cameras below it will be shown on the right side of the screen.
3. Click on the [ ◀ ] button.
4. Click on the [ ▶ ] button to cancel assignments.
5. If you want to set all cameras in the list at once, press the [Ctrl] or [Shift] key to select cameras.



- Only the cameras assigned to the recording disk can be assigned to a recording schedule.

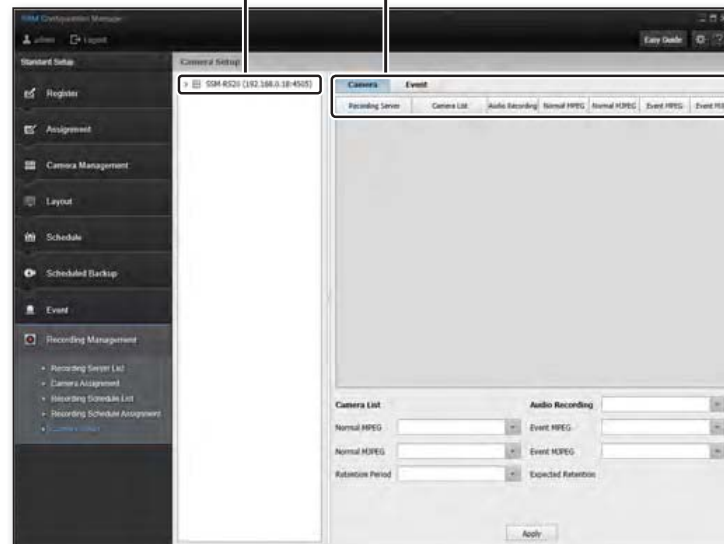


# SSM configuration manager

## Camera Setup

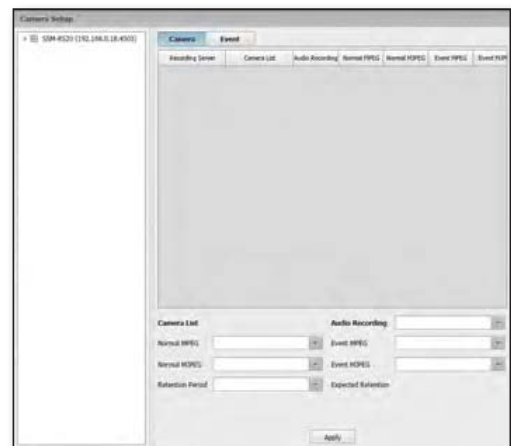
You can check or change the settings of cameras assigned to the server.

List of available camera settings      Displaying the camera settings information



### If you want to change camera settings

1. Select a camera registered in the Recording Server that you want to change the setting for.
2. Press the **[Ctrl]** or **[Shift]** key to select the camera to change the setting for.
3. Select a camera to change the setting of from the list and select a change value from the change item at the bottom.
4. To change the setting of the cameras in the list across the board, select the cameras using the **[Ctrl]** or **[Shift]** key in the keyboard and select the change value from the change item at the bottom.
5. Click the **[Apply]** button after setup is completed.
  - You can set the fps used for each camera and recording type (general/event) registered in the Recording Server.
    - You can turn the audio recording on or off.  
If you set the camera's Audio Recording to **<Off>**, you cannot record voices.
    - General recording types includes manual recording and continuous schedule recording.
    - Event recording type includes : motion/alarm/video loss/intelligent video analysis/audio.  
You can set the recording file storage period for each camera activated.
    - A recording file that exceeds the storage period will be automatically deleted.  
You can check the recording file storage period for each camera activated.
    - Press the Refresh button to renew the available storage period that is displayed.





Video settings	Options	Descriptions
MPEG	ALL FRAMES	Saving all frames received.
	KEY FRAMES	Only saves the I-frame received.
MJPEG	1 ~ 30	Uses the selected fps to save.

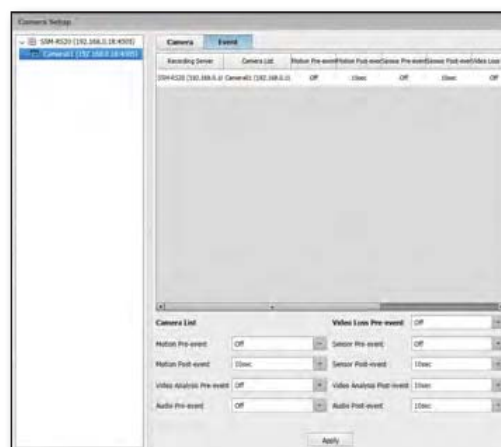
This setting will not overwrite the device video setting.

The actual frame rate used to receive and save data from a device may differ from the frame rate set here. If a smaller amount of data is received, only that much will be saved.

- The max throughput is 400Mbps.
- It supports recording with a resolution of 3MB within the throughput range.
- For recording stability, using HDD with SATA2 7200rpm or higher is recommended.  
(Each HDD's max recording processing should not exceed 100Mbps.)
- The recording data can be searched or played by using the SSM console.

### To change an event setting

1. Select an event item camera registered in the Recording Server that you want to change the recording setting for.
2. Select a camera to change the setting of from the list and select a change value from the change item at the bottom.
  - If you turn off the time setting, nothing will be recorded.
3. To change the setting of the cameras in the list across the board, select the cameras using the **[Ctrl]** or **[Shift]** key in the keyboard and select the change value from the change item at the bottom.
4. Click the **[Apply]** button after the setup is completed.



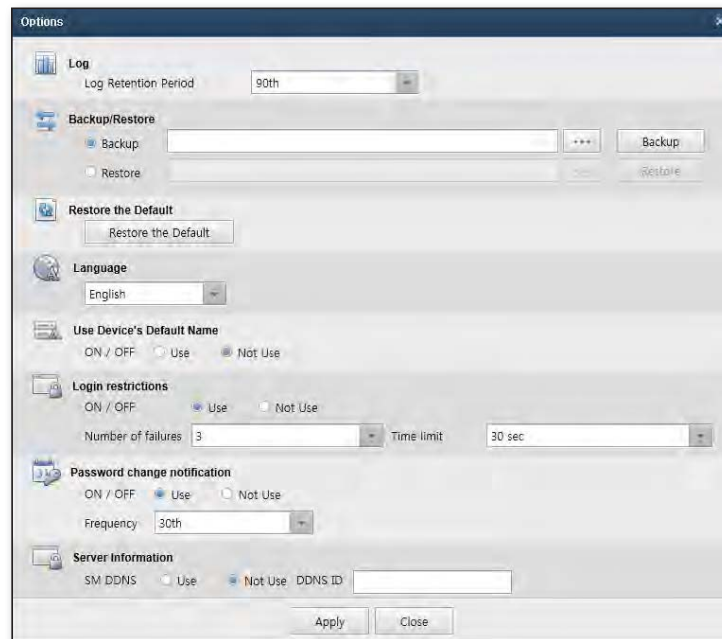
- You can set pre/post recording time with respect to the time the event occurs so that users can easily understand the situation when an event occurs.

Video during the pre/post time set based on the time the event occurs will be recorded.


- Motion, alarm, intelligent video analysis, audio event : You can set both the pre/post time.
- Video loss event : As there is no video to record after an event occurs, you can only set the pre time.
  - A video loss event only occurs in an encoder.

# SSM configuration manager

## Option Setup



### To Set up Option

1. Click the [  ] button at the upper-right section of the SSM Configuration Manager screen.
2. Configure each option item.
  - Log  
You can set the log retention period, which sets to delete expired log files automatically.
  - Backup/Restore  
You can back up the current settings or restore the SSM Configuration Manager setups from a saved file.
    - Backup : Selecting this item disables the button. Set the backup file path and click **[Backup]** button to start backup into the specified file path.
    - Restore : Selecting this item disables the button. Set the restoration file path and click **[Restore]** button to load setup from the specified backup file.
  - Restore the Default  
Initializes SSM Configuration Manager program's setup to the default settings.
  - Language  
Display language can be specified.
  - Use Device's Default Name  
When it is checked, the name of the camera registered to the device is displayed in the list or the screen.

- Login Restrictions  
Login restrictions can be specified.
    - Number of Failures : Login is restricted when the specified number of login attempts is exceeded.
    - Time Limit : Login is restricted for a specified time after a login failure.
  - Password Change Notification  
Password change notification can be sent.  
After it is turned <Use>, the notice is sent at the interval specified in <Frequency>.
  - Server Information
    - SM DDNS Use/Not Use : This option specifies whether the DDNS login function will be used by the system manager in Mobile Viewer and Web Studio.
    - DDNS ID : Enter the ID to be used for DDNS login.
3. When done, click **[Apply]** button.

# SSM console

This is a program to monitor the camera images registered and assigned to Configuration Manager, check the event, and search the data stored in the device.


## LOG IN / OUT

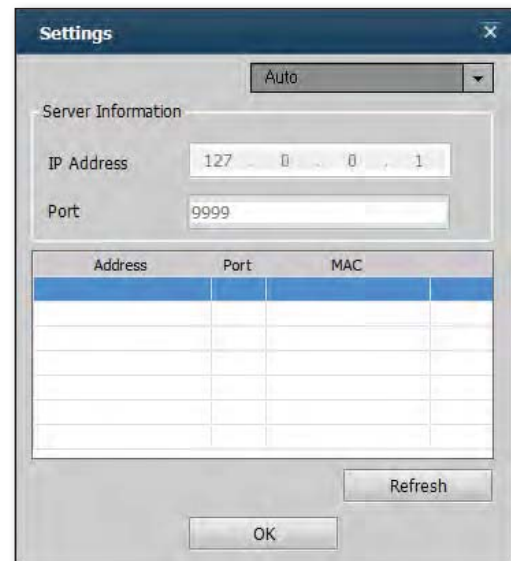
### Logging In

Once the program is started, a user must log in for correct use of the SSM Console.

1. Click SSM Console icon.  
The Login dialog should appear.
2. <LIVE>, <EVENT> and <SEARCH> viewer types are shown when viewer selection tab is clicked. Select one and log in to start the selected viewer.
3. Enter the user ID and password in the login window.
  - Default ID : admin
  - Password : Enter the password registered during the installation step.



- !
- If SSM is installed in distributed mode and you need to start the program install in another server, click the [  ] button located below the login button in the login window to register the server to either <Auto> or <Manual>.
  - If it is set to <Auto>, SystemManager is automatically selected. If it is set to <Manual>, SystemManager can be selected from the list, or IP and Port information can be set.

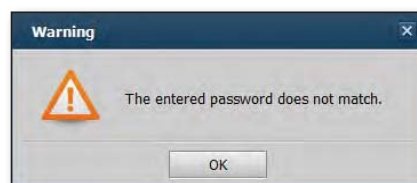




- Select **<Save Login ID>** to avoid account input from the next login.
- Set **<Auto Login>** in Settings to log in automatically upon starting the program.
- In the cases below, login will fail and the user will be prompted with login information.



< If entered unregistered user ID >




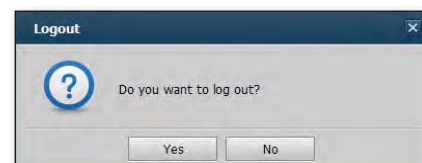
< If entered password does not match >

## Logging Out

For safer use of SSM Console, please log out when the work period is finished.

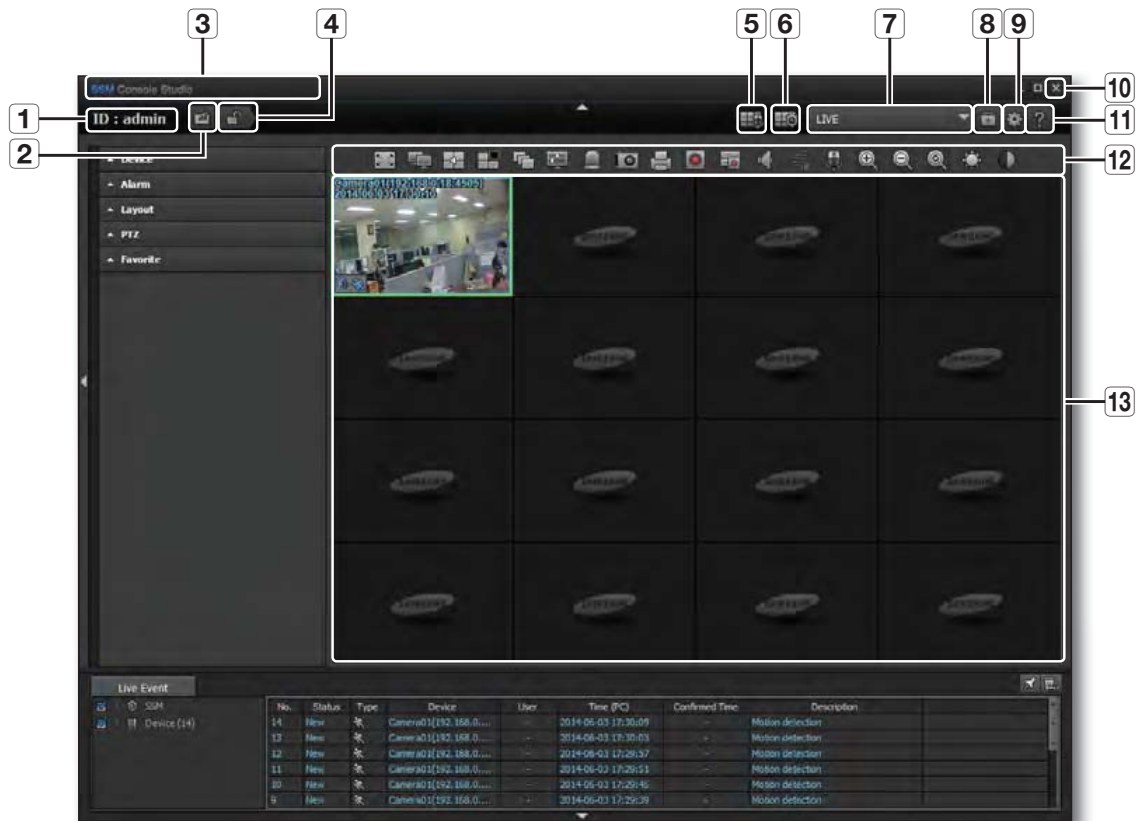
Logging out saves the last screen composition and then closes all windows, and returns to the login prompt.

1. On the main window, click [  ] button.  
The Logout dialog should appear.
2. On the dialog, click [ **Yes** ] button.  
It logs out.  
Terminating SSM Console automatically logs out the user.



# SSM console

## SSM CONSOLE SCREEN COMPOSITION




Item		Description
1	ID	Shows the User ID currently logged in.
2	UI LOCK	Locks the user interface. When attempted to use the program while locked, password dialog appears to unlock.
3	S/W Title	Shows the software title.
4	Logout	Logs out and exits.
5	Audio Broadcasting	Registered cameras can be grouped for simultaneous broadcasting.
6	Virtual matrix Controller	Run or terminate Virtual Matrix Controller.
7	Selecting the Viewer	You may select and run a desired viewer from <LIVE>, <EVENT> and <SEARCH>, or you can add a shortcut link to external program. Added external shortcut is shown in a list.

Item	Description
<b>8</b> Check the System Status	You may check the system status of computers installed with each program component.
<b>9</b> Settings	Opens the system settings menu screen.
<b>10</b> Close	Exits the program.
<b>11</b> Help	Shows the SSM Console application's information.
<b>12</b> Menu Bar	Loaded with executable menu buttons.
<b>13</b> Display Pane	Shows the screen according to the selected viewer.

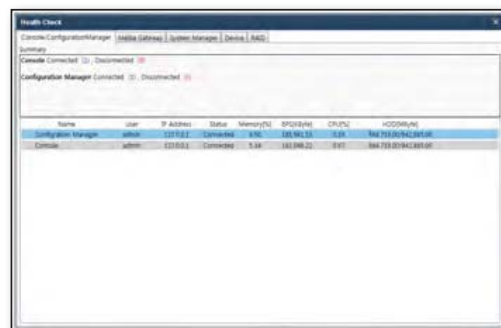
## Check the System Status

You may check the status of the computers installed with each program component.

1. Click [  ] on the top side of SSM Console.
2. Check each component's IP address and its status from the popped Health Check window.



- The device status in the health check window is displayed only for systems supporting SNMP.




## Health Check

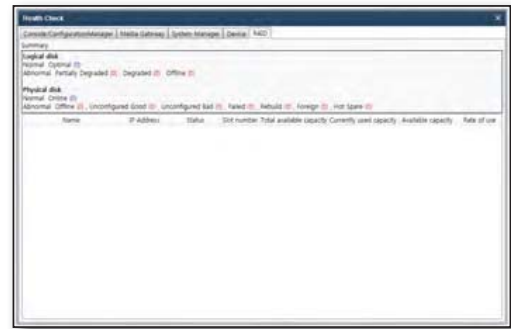
The health check shows the summary of each item.

- Console/Configuration Manager/Media Gateway/System Manager shows the number of connected devices and the number of disconnected devices of all items.
  - IP address : IP data
  - Status : Connection status data
  - Memory : Memory utilization rate
  - BPS : Total network utilization of the PC in which the item is installed
  - CPU : CPU occupation rate
  - HDD : HDD capacity in use / Total HDD capacity
- The device shows the number of connected devices, the number of disconnected devices and the number of devices without SNMP setting.
- RAID shows the following information.
  - Number of virtual disks in normal condition (Optimal condition = normal.)
  - Number of virtual disks in abnormal condition (Partially Degraded, Degraded or Offline condition = abnormal.)
  - Number of physical disks in normal condition (Optimal condition = normal.)
  - Number of physical disks in abnormal condition (Offline, Unconfigured Good, Unconfigured Bad, Failed, Rebuild, Foreign, or Hot Spare condition = abnormal.)

# SSM console

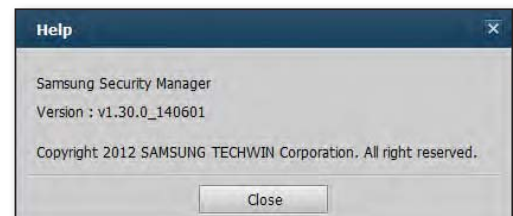
## RAID Status Checking

1. Virtual disk condition: {Optimal, Partially Degraded, Degraded, Offline}. Optimal is the normal condition and others are the abnormal conditions.
    - Optimal : The member disk is online.
    - Offline : One or more member disks have failed, and the data cannot be accessed.
    - Degraded : One or more virtual disks set to the redundant RAID level failed, and the virtual disks cannot be maintained if there are any more errors.
    - Partially Degraded : One or more virtual disks set to the redundant RAID level failed, but the virtual disks can be maintained even if there are any more errors.
  2. Physical disk condition: {Unconfigured Good, Online, Failed, Rebuild, Unconfigured Bad, Foreign, Hot spare, Offline}. Online is the normal condition and others are the abnormal.
    - Online : The RAID controller can access the virtual disks.
    - Failed : The disk is a virtual disk but is no longer usable.
    - Unconfigured Good : The RAID controller can access the disk, but the disk is not a virtual disk.
    - Unconfigured Bad : The disk failed but is replaced by the hot-spare disk and thus is no longer a virtual disk.
    - Rebuild : This disk is used to restore the redundancy of a virtual disk.
    - Foreign : A disk is displayed as foreign until the user changes its configuration after it is added to another RAID controller.
    - Hot spare : The disk is set to hot-spare.
    - Offline : The disk is a virtual disk and displayed in invalid data. It may be in the middle of a status change.
-  RAID data are displayed only for the recording servers installed in a PC/server using the RAID controller supplied by Intel/LSI.



## Help

Click Help button to display program version and date information window.





## Checking up Console Configurations

The Console consists of Live, Search and Event Viewer.  
Understand the role of each component and run the appropriate one as required.

### Console Structure

- Live Viewer : Provides real-time video and event information for monitoring, as well as PTZ control interface.
- Event Viewer : Provides viewing of real-time events and the searching / playing of device's events.



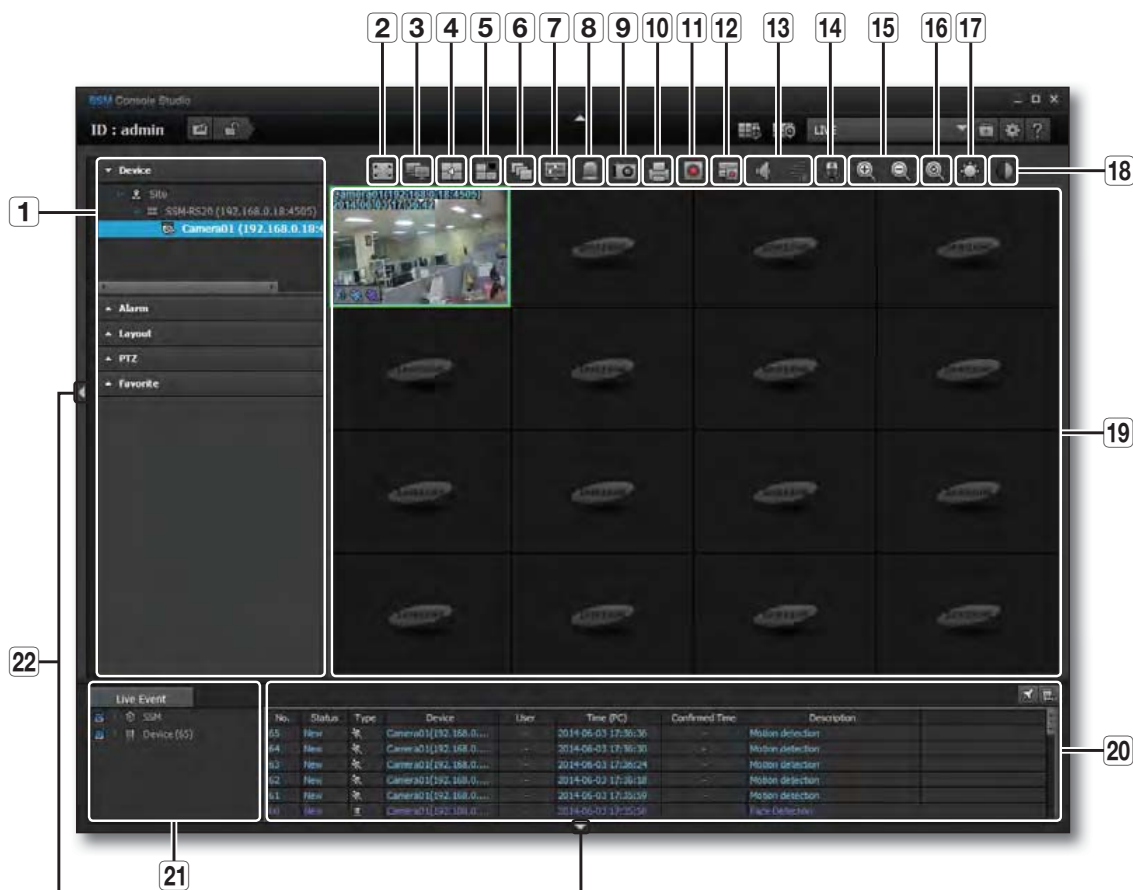
- Search Viewer : You can search and play video footage stored in your local computer or in the device.



# live viewer

Provides real-time video and event information for monitoring, as well as PTZ control interface. Select **[LIVE]** menu of the viewer selection tab on the top right side of SSM Console. Initially, SSM Console's default viewer is set to the Live Viewer.

## NAMES AND FUNCTIONS OF LIVE VIEWER

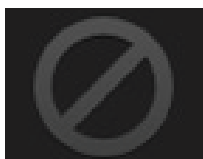


Item	Description	
1	List Menu	Shows registered devices and their connection status.
2	Full Screen	Fills the monitor's full area with video screen.
3	Multi Monitor	Enables expanded monitor configuration for monitoring.
4	Change Tile Pattern	Selects the split screen mode of the live viewer's video area.
5	Deletes the video tile.	Deletes all open video tiles.
6	Sequence	Screen switches its display layout mode automatically in order and interval defined in "Settings > Screen > Monitor > Sequence".

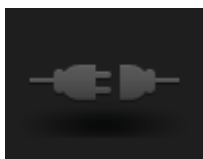
Item		Description
7	OSD On/Off	Show or hide displayed indicators.
8	Initialize Events	Clears out all event indicators from all video tiles.
9	Capture	Captures the selected video tile's current screen as an image file.
10	Print	Prints out the selected video tile's current screen.
11	Record	Starts or stops recording of the selected video tile.
12	Device REC	Starts or stops recording with connected device remotely.
13	Speaker	Turns on or off the speaker.
	Volume	Adjusts audio volume.
14	Talk	If supported by the connected device, activates microphone to talk.
15	Zoom In/Out	Enlarges or reduces video size using digital zoom.
16	Original Size	Resizes zoomed screen to its original 100% size.
17	Brightness	Adjusts the current video tile's brightness.
18	Contrast	Adjusts the current video tile's contrast.
19	Display Pane	Shows the Live Viewer screen.
20	Event List	Shows events occurred on connected devices.
21	Event Filter	You can select event types to be displayed on the event list.
22	Show/Hide Tools	Use these buttons to show or hide menu pane and control buttons.

## Camera status indicator

Indicators shown on the video tile tells the connected camera's input status.



< Video Loss >



< Disconnected >

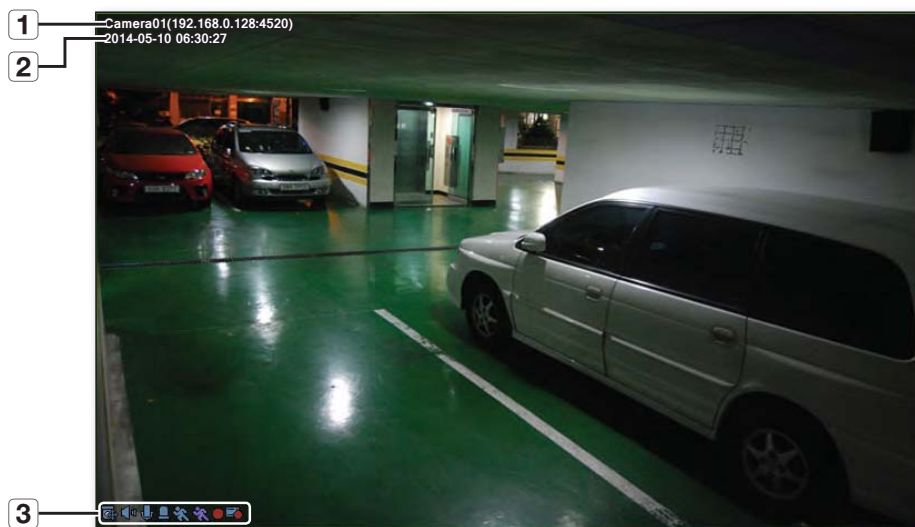











< Exceeded max  
user >



< Camera Off or  
Covert >

## NAMES AND FEATURES OF SCREEN INDICATORS



Item		Description
1	Camera Name	Shows the name and IP address of camera connected to the corresponding video tile. If <b>&lt;Use Device's Default Name&gt;</b> is set, the name registered to the device is shown as the camera name.
2	Date & Time	Shows the video's date and time information.
3	Icon	 Shows the device supports PTZ control.
		 Display the status of audio output.
		 Display the status of using the microphone.
		 Appears when a sensor event is generated.
		 Appears if motion event is detected by the corresponding camera.
		 Appears if a video analysis event has occurred on the corresponding camera.
		 Appears if audio event is detected by the corresponding camera.
		 Shows that recording is in progress on the computer running SSM Console.
		 Shows that recording is in progress on a remotely connected device.

## DEVICE

Add a networked device and allocate a registered camera to the user's device list. Select the device to view the in a tile.

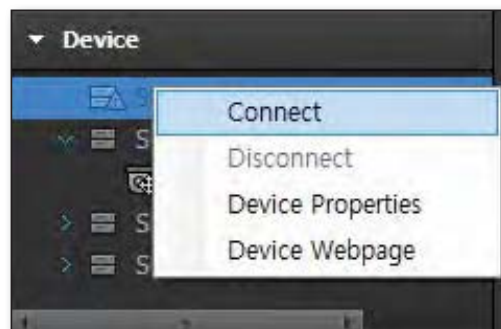
In registration step, set to <Connect> to display the device in the list as connected.

### Connecting Devices

1. Select a device to be connected to.
2. Right mouse click on it.  
Upon the context menu, select <Connect>.

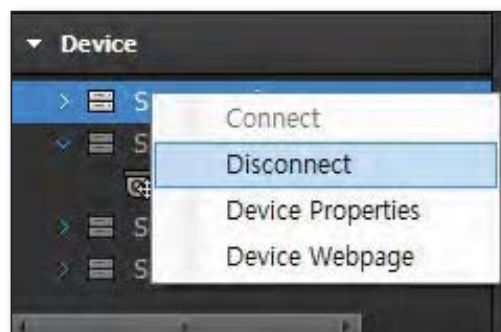


- For further information on adding devices, refer to "Registration > Device". (Page 30)
- If logged out while connected to a device, logging in again revives previously connected devices and groups automatically.
- If you select a list and enter text (keyword), only those groups and devices that contain the text will be displayed in the search result. This is useful if you do the search for a long list of devices or groups.



### Disconnecting Devices

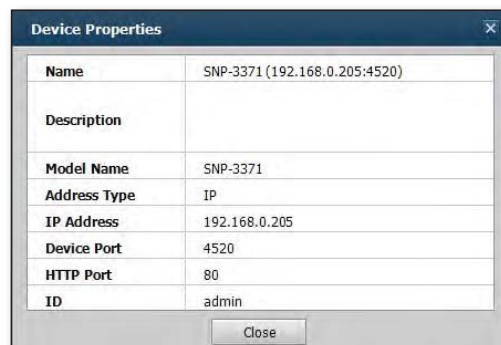
1. Select a device to be disconnected.
2. Right mouse click on it.  
Upon the context menu, select <Disconnect>.



# live viewer

## Device Properties

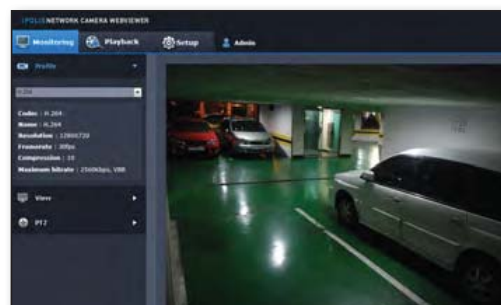
1. Select a device.
2. Right mouse click on it.  
Upon the context menu, select **<Device Properties>**.
3. Check the device information.



## Device Webpage

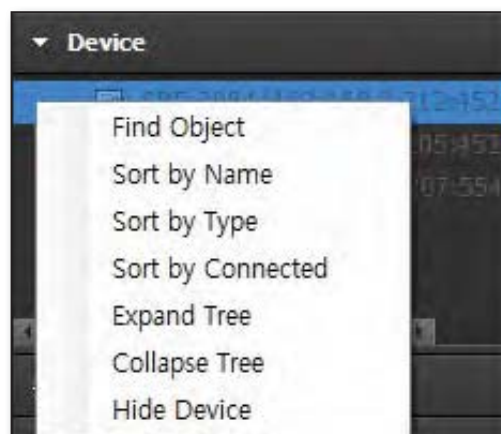
Runs the device on a web viewer.

1. Select a device.
2. Right mouse click on it.  
Upon the context menu, select **<Device Webpage>**.
3. Enter the access information to the device, ID and password.
4. Moves to the connected device's web viewer starter page.



## Device Context Menu

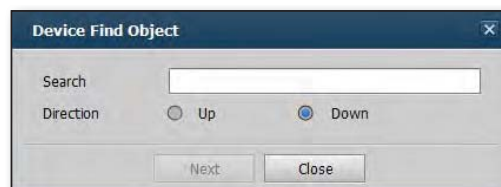
Right mouse click on an empty area within the device list to open device context menu.



## Find Objects

You may find a device by name from the registered devices.

1. From the context menu, select **<Find Object>**.
2. Once the Find Object window appears, select the searching direction.
3. Enter the keyword for name and click **[Next]** button.



- **[Ctrl]+[F]** also brings the find object window.
- Find object opens only when the object tree has the focus (highlighted).
- The **[Next]** button is activated only if a keyword exists.

## Sort by Name

From the context menu, select **<Sort by Name>** to sort devices by name.

## Sort by Type

From the context menu, select **<Sort by Type>** to sort devices by type, while the device tree collapses.

## Sort by Connected

From the context menu, select **<Sort by Connected>** to sort devices by the order of connection establishment.

## Expand / Collapse Tree

From the context menu, select **<Expand Tree>** or **<Collapse Tree>** to show or hide tree list of registered devices.

## Show / Hide Devices









From the context menu, select **<Hide Device>** to hide registered devices.  
If hidden, the menu switches to **<Show Device>** automatically, and selecting it reveals the hidden devices.

## CAMERA LIST

If connecting to the device was successful, a list of connected cameras appears.

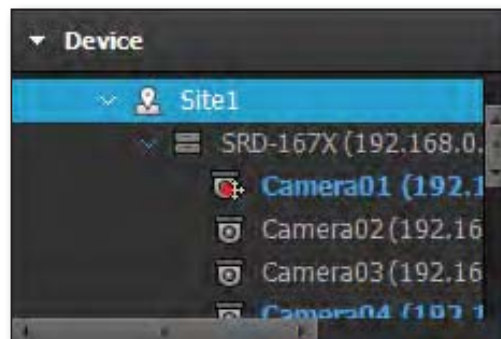
### Camera Indicators

Indicators that appear by each camera in the list show the camera's status information.

-  : General camera
-  : Camera supports PTZ control
-  : In recording
-  : Camera disconnected by a user
-  : Camera is disconnected / unreachable
-  : Box Type
-  : PT Driver Type
-  : Fish-Eye/Panomorph Type



Refer to "**Camera Information**" for details of camera type selection. (page 38)



### Camera Context Menu

From the device list, select a camera and right click on it to open the camera context menu.

#### Locate Tile

Highlights the selected camera's video tile.

#### Add Video

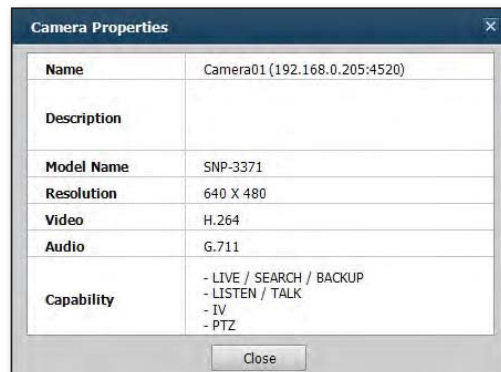
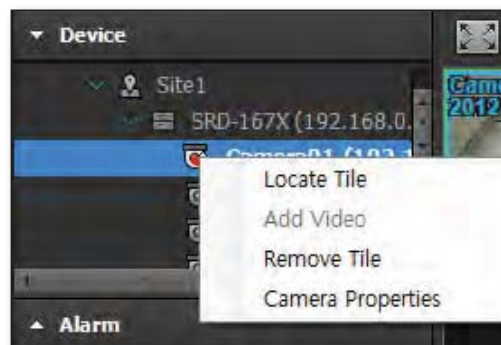
Selected camera's video is displayed on an unoccupied tile.

#### Remove Tile

Select a camera and open context menu to select <**Remove Tile**> to remove the corresponding tile.

### Camera Properties

Select a camera and open context menu to select <**Camera Properties**> to display the camera's properties.





## ALARM OUT AND CONTROL

Once a device's connection is established successfully, the device appears in the Alarm Out list. You may turn on or off each device's alarm.

### Alarm Out Context Menu

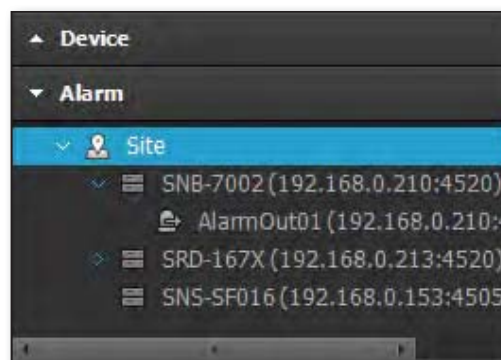
Select an alarm and right click on it to open its context menu that enables alarm control.

### Turning On Alarm Out

Select an alarm and open context menu to select **<Alarm Out On>** to turn on the selected alarm's alarm output.

### Turning Off Alarm Out

Select an alarm and open context menu to select **<Alarm Out Off>** to turn off the selected alarm's alarm output.



### Turning On / Off Alarm Beep

For devices supporting Alarm beep speaker, **<Alarm Beep On>** or **<Alarm Beep Off>** menu appears.

Upon such device's alarms, you can turn on or off beep sound output.



## SELECTING TILE PATTERN

You can set the video pane's split-screen mode.

- 4:3 screen modes : 1/4/6/8/9/10/12/13/16/17/21/25/36/49/64




- 16:9 screen modes : 6/12/20/30



- While in multi-monitor environment, layouts and split modes for less than 100 channels will be available. Other modes will be disabled.
- Modes having more splits than the number defined in **<Split Screen>** will be disabled. (Page 141)


## LAYOUT

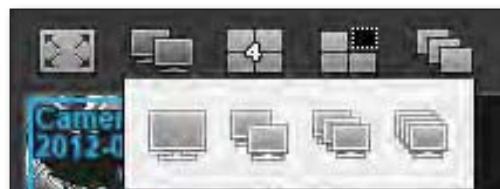
You can configure SSM software to display in multiple monitoring devices with defined layout.

From the top side menu, select [  ] button then select a desired multi monitor type, and configure the layout as preferred on the expanded monitor.

### Apply a layout for the multi monitors

#### Selecting the multi monitors


1. From the top side menu, click [  ] button.
2. Select the number of monitors.  
As many monitors as specified are displayed on the screen.
3. Select a monitor to be applied with the layout settings by clicking arrows beside the monitor name.



- Monitor #1 is the default monitor, and Monitor #2 and others are expanded monitors.
- You can set expanded monitor in **"Screen > Monitor"**. (Page 141)
- The extended monitor (subsidiary Live Viewer) is applied to the monitor specified in **"Screen > Monitor"**. Full screen is also applied to the specified monitor.
- Since the monitor 1 is set to the extended monitor by default, the monitor setting must be changed to change the location of the extended monitor execution.



## Setting the Tile Pattern for the expansion monitor

1. Click a tile of an expansion monitor to activate the corresponding monitor.
2. From the top side menu, click [  ] button.
3. Select a desired tile pattern to apply it.

## Applying Layout

Select a monitor and then double click the desired layout.  
The selected monitor is applied with the layout.

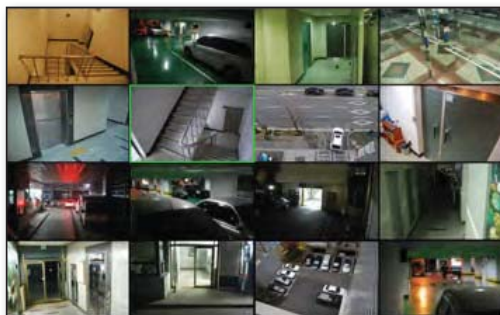


### To add a layout

You can add multiple layouts to a desired monitor.

The layout can be registered in "**Layout > Register**" of SSM Configuration Manager.

For further information on adding layouts, refer to "**Layout Setting**". (Page 55)



< Camera Layout >



< Map Layout >

# live viewer

## Favorites

The camera layout of the selected monitor can be added to Favorite (32 Korean characters or 64 letters).

- The Favorites are stored separately for each user.



## Using Map Layout

### Selecting Split View Mode for Map Layout

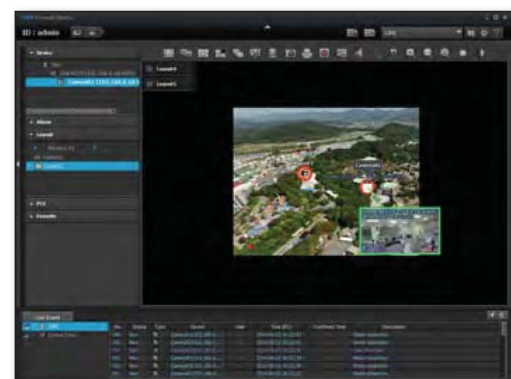
When selecting a Map Layout, up to 10 split view modes are available for the corresponding.




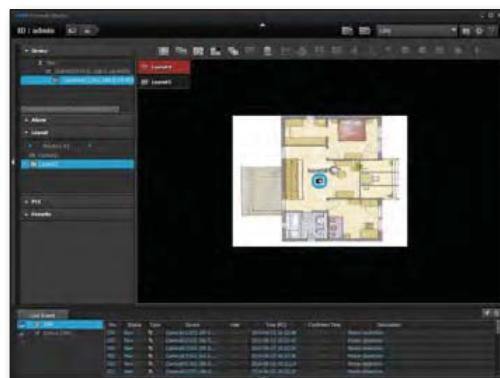
### Utilizing the Map Layout

In the split view mode, a desired layout can be applied quickly.

- The Free mode places the video right upon the camera icon when the icon on the map layout is clicked.
- The other 9 modes place the camera's video on the first unoccupied tile when clicked the camera icon.
- To delete the selected video, press the **[Delete]** key on the keyboard.
- Map tile link line : When a camera icon or image window is clicked, the image window and camera are connected by a line.
- Icon tool tip : Place the mouse pointer on a camera icon on the map layout to display the description input in "**Registration > Device**" of Configuration Manager.



- Mini map : Double click the Map Link button or layout group link to display the mini map page.
- To exit Map Layout mode, click [  ] button.
- If you select a layout group in the layout tree, the first map that belongs to it will be displayed. Also, the screen will display the button you can press to move to the map that belongs to the group.
- Camera
  - Tile search : It finds the tile showing the camera image.
  - Tile delete : It deletes the tile showing the camera image.
  - Attribute : It shows the information of the connected camera.
  - Instant Player : It runs the Instant Player.
- Alarm Out
  - Alarm Out On : It turns on the alarm output setting.
  - Alarm Out Off : It turns off the alarm output setting.



### To initialize the angle

Click on the [  ] button and then the Move to Map button to initialize the angle.



- Refer to "**Layout Setting**" for more details of layout. (Page 55)
- Refer to "**OSD Display**" for further information on setting the mini map. (Page 142)

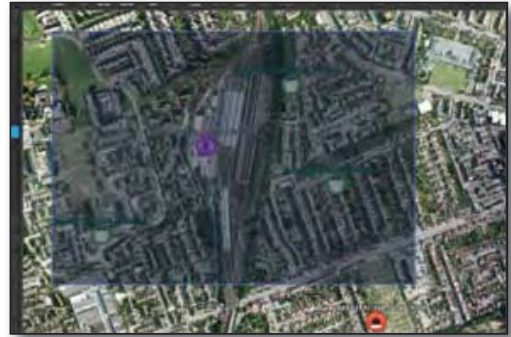
### To move around the map

- While holding down the mouse's right click, move your mouse to change the map angle.
- While holding down the mouse's left click, move your mouse to change the map location.

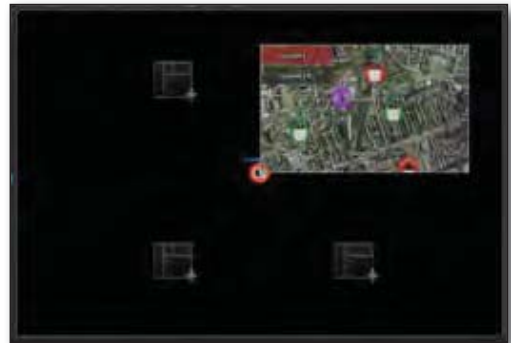


# live viewer

- Press the 'Shift' key and drag the mouse to draw a rectangle and select all camera icons within the rectangle. Drag the selected icons to the map to display the image tiles of the selected cameras on the map, to the multi-monitor to display the images of the selected camera, and to the view matrix setting screen to set the selected cameras in the view matrix.



- If the mini map is checked in the console setup, the mini map is displayed when the Map Link / Layout Group Link icon is double clicked.



## To zoom in/out

Use zoom control bar to zoom in/out the current map screen. To zoom in/out, click the control bar in the middle and drag. Mouse wheel button zooms in/out the map too.

- When the image tile on the map is double clicked, the size is changed in the sequence of 1X, 2X, 3X → 1X, 2X ....





Instant Viewer

The camera icon on the map layout blinks if an event occurs. Double click the camera icon to display "Instant Viewer". It enables checking the event and digital zooming on the video screen.

- 
- For further information on using the Instant Viewer, refer to "Instant Viewer". (Page 108)



Viewing Instant Player


Point the mouse to a camera icon flickering because of an event, click the right mouse button and select the instant player to display the recorded video images.














## VIRTUAL MATRIX CONTROLLER

Virtual Matrix Controller is used to control the SVM (Samsung Virtual Matrix) S/W and it requires installation of the SVM.

Virtual Matrix Controller can only retrieve the settings in the SVM and apply or edit them. It cannot save the modifications. If you want to save the changed settings, you need to use the SVM.

1. Click on the [  ] button in the top of the SSM Console screen.
2. In the right hand side of the video window, the Virtual Matrix control screen will be displayed.

### Functions of the monitor layout viewer button

-  /  : Loads the video displayed on the wall monitor into the program.
  -  /  : It starts or stops the Advanced Wall Layout mode when the Wall Layout is selected.  
It starts or stops the Wall Sequence/Wall Spot when the Wall Sequence/Wall Spot is selected.
    - Advanced Wall Layout mode : This refers to changing the monitor layout, monitor sequence, tile spot and monitor spot in the wall layout to be in a run ready condition.
  -  : Removes the event displays from the selected tile.
  -  : Removes the event displays from the selected monitor.
  -  : Changes the monitor layout pattern.
  -  : Deletes the displayed content from the selected tile.
  -  : Deletes the displayed content from all the tiles.
  -  : Reverts to the last saved monitor layout.
-  ▪ A tile is a single unit of video displayed in the monitor.
- While editing the monitor layout, if you want to work on another monitor layout, then click on it to move to it immediately.
- The information display window in the bottom of the monitor layout will display the <Wall Layout> if you click on it and will display the <Monitor Layout> if you click on it.



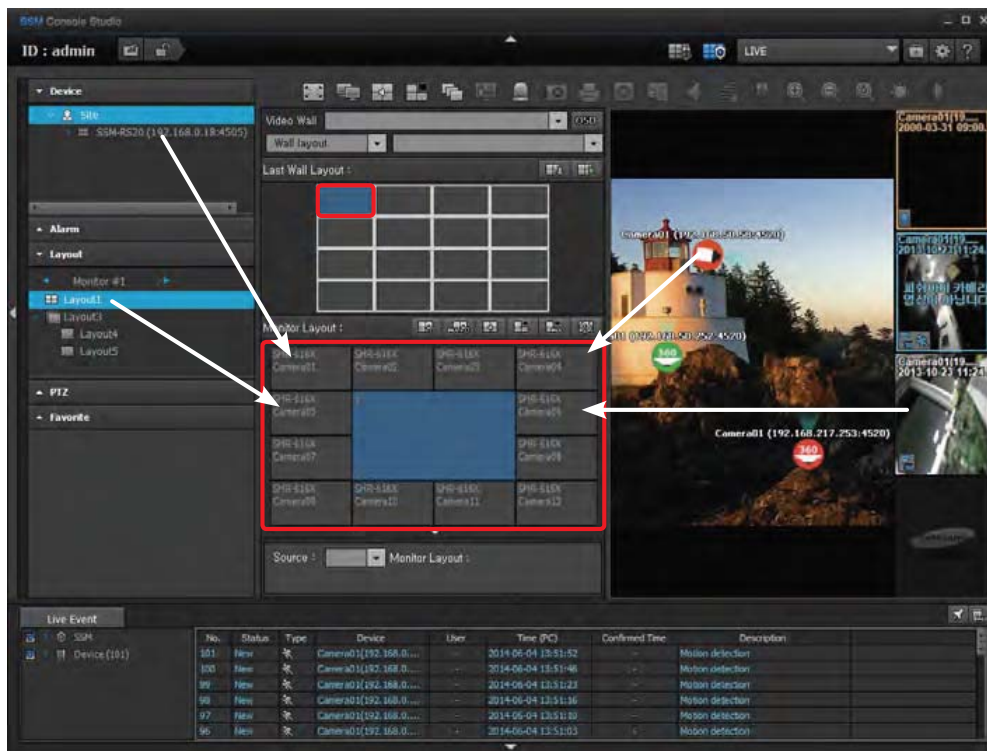
### To apply a Wall Layout

1. Select a registered wall.
2. Set the wall mode to Wall Layout.
3. Select a wall layout to use.  
The wall layout will be immediately applied to the wall.
4. The selected Wall Layout name will be displayed.





## To edit the Monitor Layout



1. Double click a tile in the wall layout to display the information of the selected tile.
  - The information of the selected tile : Monitor layout, map layout, monitor sequence, tile spot and monitor spot data are displayed. Although the monitor layout data include the details of the layout, other items only display the object name.
2. Drag and drop the device/layout/map icon/live video to the monitor layout. It will be reflected in the wall on a real time basis.
  - Video that can be assigned by dragging and dropping
    - Drag a device and assign it to the monitor layout
    - Drag a layout and assign it to the monitor layout
    - Drag an event and assign it to the monitor layout
    - Drag the icons in the map layout to allocate them to monitor layout. (Multiple icons can be selected using the <Shift> key.)
    - Drag video played in the SSM and assign it to the monitor layout
3. However, it is not reflected on the wall right away if the wall mode is active.

# live viewer

## To run a wall sequence

A wall sequence is a function to shift multiple wall layouts in order to view multiple layouts on a single wall.

1. Select the wall mode to Wall Sequence.
2. Select a specific wall sequence from the wall sequence list.
3. If you press it once, a wall sequence will appear. Press it one more time to terminate it.



## To Run Wall Spot

The wall spot is a function to change the wall image when an event is generated in a device.  
A spot is a function to change the wall video when an event occurs on a specific device.

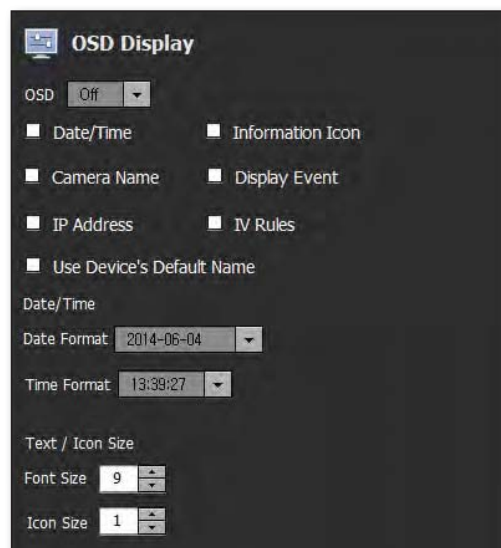
1. Select the wall mode to Wall Spot.  
The wall spot added in SVM is displayed.
2. Select a wall spot from the wall spot list.
3. Click once to start the wall spot and click again to stop the wall spot.



## If you want to set the OSD on the wall

Set the OSD to be displayed on the video wall.

1. Click on the [OSD] button.  
The OSD settings screen will be displayed.
2. Select an OSD item to be displayed in the video.
3. Click on the [OK] button after settings are completed.  
Click on the [Cancel] button to return to the previous screen.

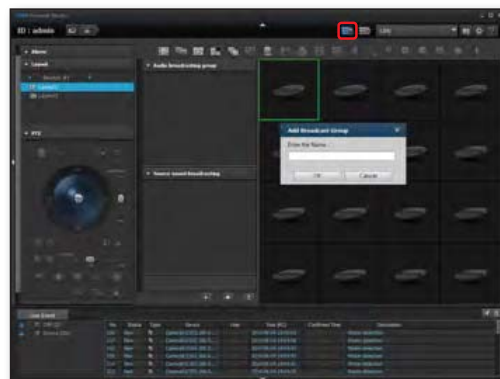


## AUDIO BROADCASTING

### To Add/Delete an Audio Broadcasting Group

A broadcasting group can be added and a camera can be registered for audio broadcasting.

1. Click the right mouse button on an audio broadcasting group and select **<Add Broadcasting Group>**.
2. Enter the name in the name input box and click the **<OK>** button.
  - The name can be changed after the broadcasting group is added.
3. Register a camera by dragging and dropping under the added broadcasting group.
  - There is no limitation on the number of broadcasting groups to be added, but up to 16 cameras can be registered.
4. To delete an added item, select the item and right click the mouse and select **<Delete Item>**.

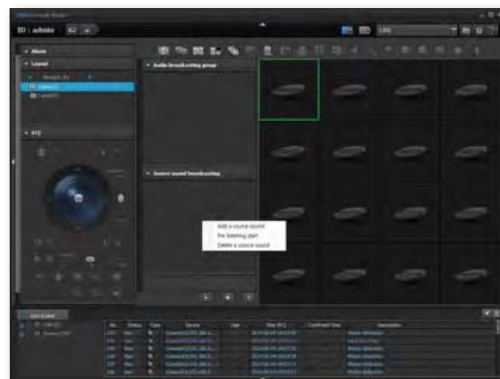


• LIVE VIEWER

### To Add/Delete the Source of Audio Broadcasting


The sound files in the PC can be selected for broadcasting.

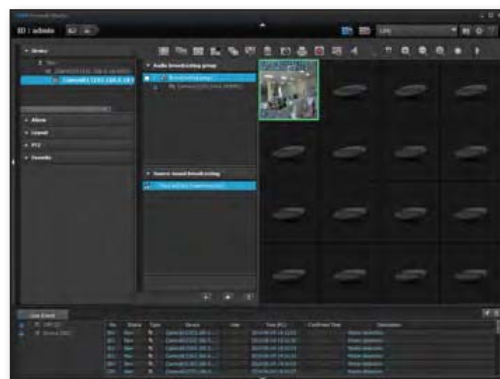
1. Select 'Audio Broadcasting', right click the mouse and then select **<Add Sound Source>**.
2. Select a sound file to add.
  - Only mp3 and wav format sound files are supported.
3. Right click the mouse to preview or stop preview of the added sound file.
4. To delete an added sound file, select the file and click the right mouse button then select **<Delete Sound Source>**.



- The registered cameras can be grouped for simultaneous broadcasting.



- User's voice can be transmitted using [  ].
- Up to 16 cameras can be selected at once for broadcasting.

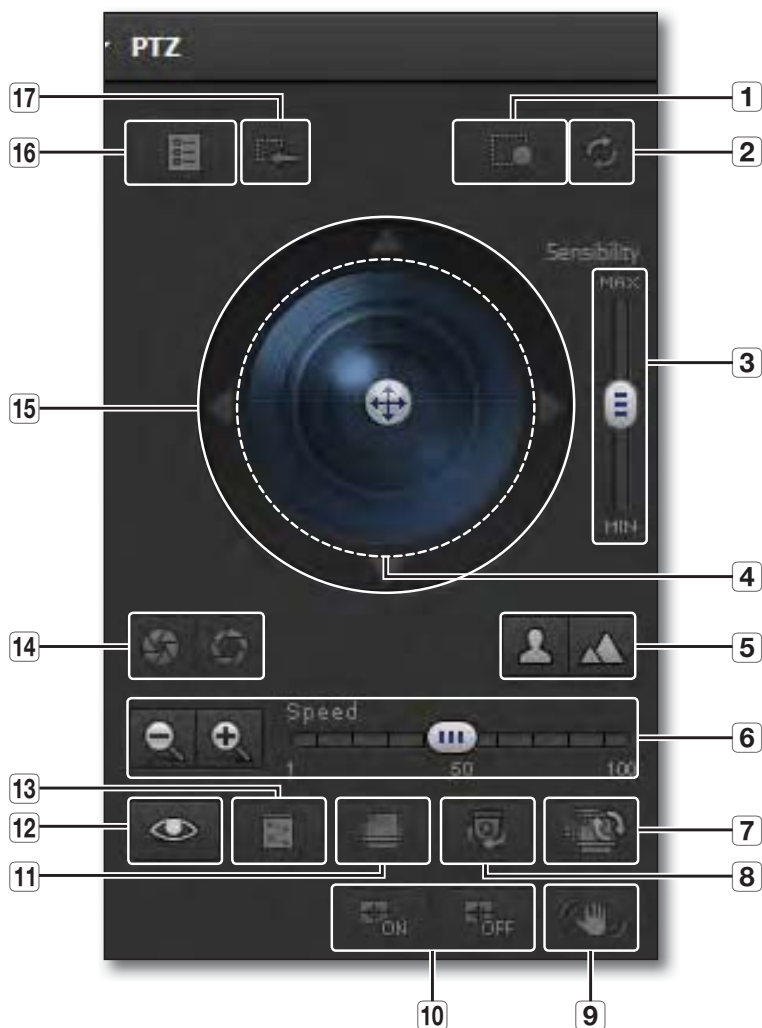


## PTZ CONTROL

If the connected device supports PTZ functions, you can control PTZ camera remotely.




- Even the box cameras without the PTZ function can use some function of <Panomorph Lens> or <Fish-Eye>.
- Depending on camera model used, PTZ control may not be supported. For further information, refer to the camera's user manual.
- If the camera supports Fish-Eye or SUNAPI, the home position can be set.
- Select the PTZ camera and click the arrow key to move the PTZ camera in the selected direction.

### Names and Functions of PTZ Control Window




Item		Description
1	Area Zoom	Controls PTZ to fill in tile with the dragged area on the video.
2	Go to 1x Zoom	Restores the original 1x zoom from Area Zoom screen.
3	PTZ Sensitivity Controller	Adjusts the PTZ ball control sensitivity to faster or slower.
4	PTZ Ball	While operating PTZ, click and hold the ball and drag to desired direction to adjust the camera's framing.
5	Focus Adjustment	Adjusts the camera's focus manually. <ul style="list-style-type: none"> <li>Focus Near : Adjusts the focus range to closer distance.</li> <li>Focus Far : Adjusts the focus range to farther distance.</li> </ul>
6	Zoom Adjustment	Zooms in / out with controllable zooming speed. Zooming activates only if clicked at the speed set by speed slider. <ul style="list-style-type: none"> <li>Zoom Speed Slider : Sets the zooming speed out of 1 – 100 range.</li> <li>Zoom In : Zooms in to enlarge the image.</li> <li>Zoom Out : Zooms out to reduce the image.</li> </ul>
7	Patrol	This is to call a group and its presets in order for monitoring. You can only activate or deactivate the <Tour> option of the camera.
8	Swing/Autopan	Sets the camera to repeat swinging from a certain position to another. According to the configuration, you can set to rotate or swing. You can only activate or deactivate <Autopan> option of the camera.
9	DIS On/Off	DIS function can be turned on or off.
10	Auto Tracking On/Off	The auto tracking function can be turned on or off.
11	Group/Scan	Controls the camera according to the added preset groups in order, where a preset group can be of multiple presets. You can only activate or deactivate <Scan> option of the camera.
12	Trace/Pattern	Moves and zooms the camera with a predefined settings automatically. You can only activate or deactivate <Pattern> option of the camera.
13	Preset	You can save specific camera's view as a preset, or recall a preset to set camera framing.
14	Iris Control	Controls the amount of light travels through the lens. <ul style="list-style-type: none"> <li>Close Iris : Sets to bigger F number for less light exposure, resulting in darker image.</li> <li>Open Iris : Sets to smaller F number for more light exposure, resulting in brighter image.</li> </ul>
15	Camera Menu Traversal	While opening the camera menu, adjust the selected position.
16	Switch to the Menu Mode	Moves to the connected camera's settings menu screen.
17	Exit the Menu Mode	Exits the menu setup.

## Auto Tracking

1. Click [  ] to run auto tracking.
2. Press <Alt> key to select the object to auto track in the image.  
When the movement of the selected image is detected, the camera moves in the detected direction.
  - [  /  ] is enabled only for models that support Auto Tracking.

## Using the Camera Menu


Click Camera Menu button to toggle display of the connected camera's menu on the screen.

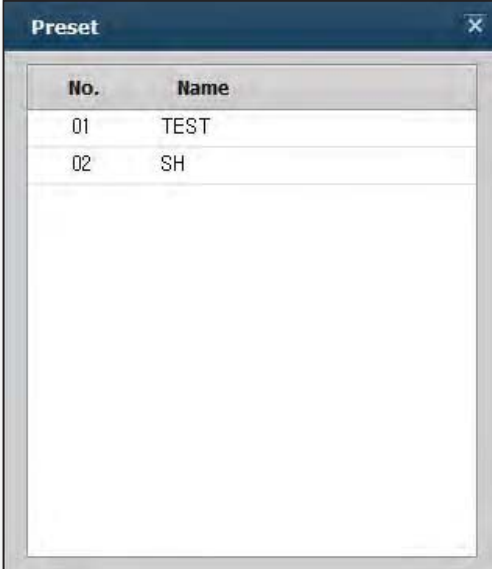
1. Using the PTZ Ball up/down/left/right control button, move to a desired menu.
2. To select the menu, click PTZ ball control.
3. To exit camera menu mode, click [  ] button.

## Preset Control

Click [  ] button to display saved list of presets.

Select one from the list to set the camera's view to the saved location.

-  Presets can be saved in Settings menu.  
For further information on preset, refer to "**Setting Presets**".  
(Page 53)



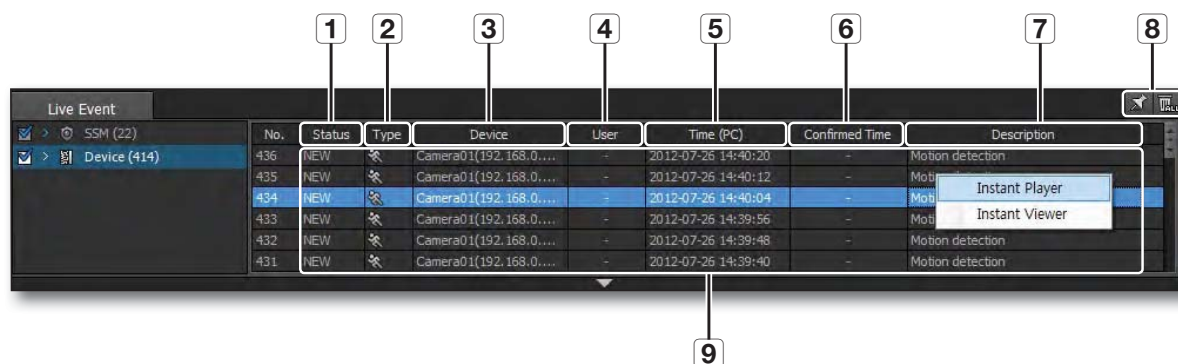
No.	Name
01	TEST
02	SH



## EVENT LIST

Lists up device events in real-time.

### Viewing Real-time Events

You can check device events from all connected devices in the list.  
Filter the events by selecting type of events for the Event List.



Item		Description
1	Status	Shows the event status.
2	Type	Shows occurred event's type as icon.
3	Device	Shows the device type.
4	User	In SSM system, it shows the current SSM user's account information. For general device-related events (motion detection, sensor, etc.), the user ID who acknowledged the event is shown.
5	Time (PC)	Shows the event time.
6	Confirmed Time	Shows the time acknowledged.
7	Description	Describes the meaning of the event.
8	Scroll Lock	 Locks the list not to automatically scroll.
	Clear List	 Fully clears out the event list.
9	Event List	Shows real-time events of the device selected in the left pane. Double click a listed item to open "Instant Viewer" pop-up window. Right mouse clicking on an item opens context menu of "Instant Viewer" and "Instant Player".

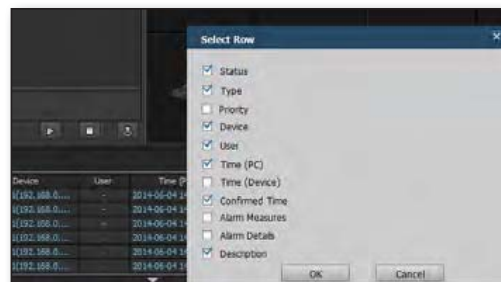


# live viewer

## Selecting displayed items

You can select items to be displayed in the event list.

1. Select the title on top of the event list, and right click on it.
2. Select event items to be displayed in the list, by checking the checkbox.
  - Items such as event time (device), measures taken and alert history can be listed additionally.
  - Event priorities are additionally displayed. Double click the event priority column to sort the events according to the priority.



## PLAYING RECORDED EVENTS

Select an event item from the list and right click on it to open context menu of <Instant Viewer> and <Instant Player>. Select either one of them to check the video.

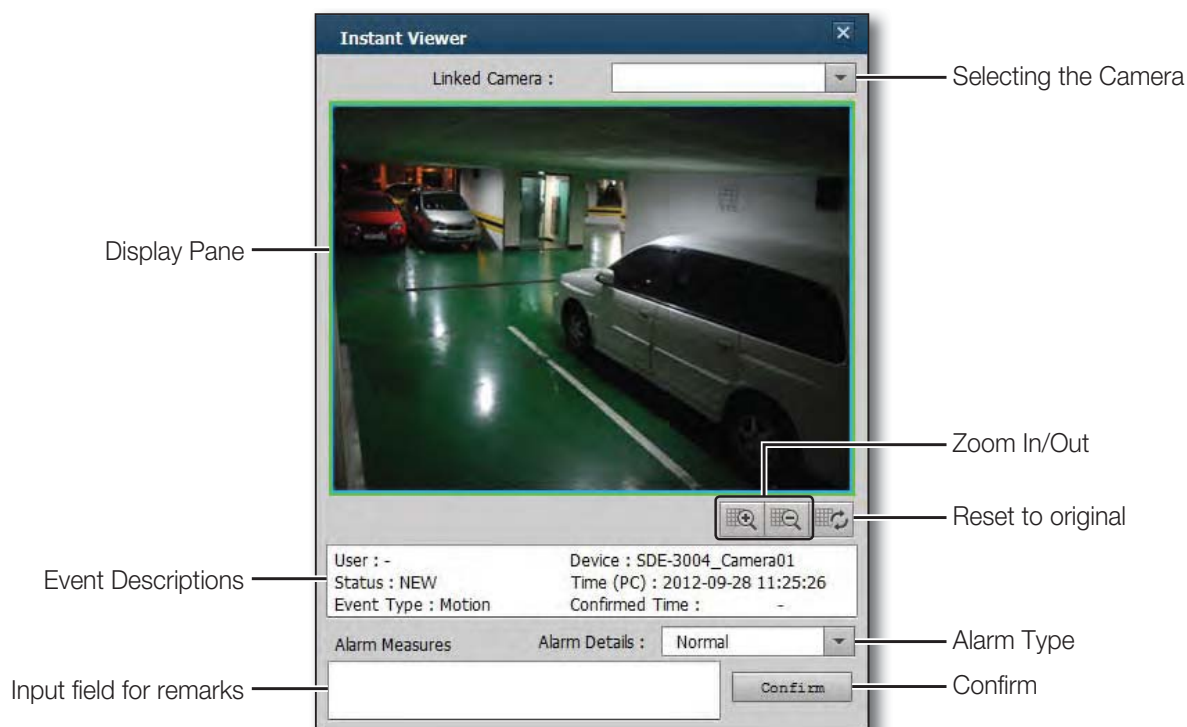


- The <Instant Player> is playable only if the corresponding device contains saved data.

## Instant Viewer

Double click a listed item to open "Instant Viewer" pop-up window.

You can confirm the event, record event remarks and end the event status.

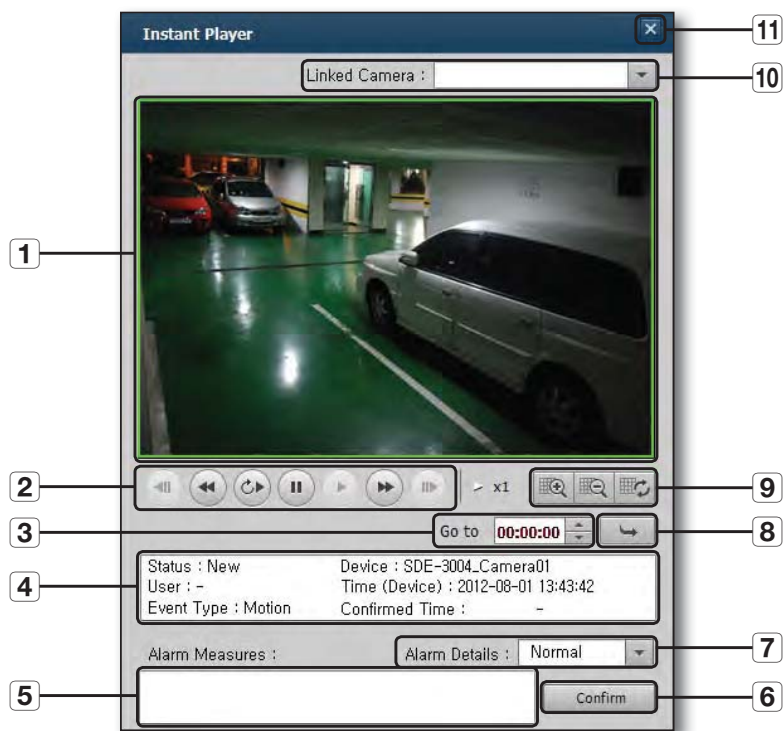




Instant Player

Select an event item from the list and right click on it to open context menu and click <Instant Player> to open it and play the corresponding camera’s video image.

Names and Functions of the Instant Player



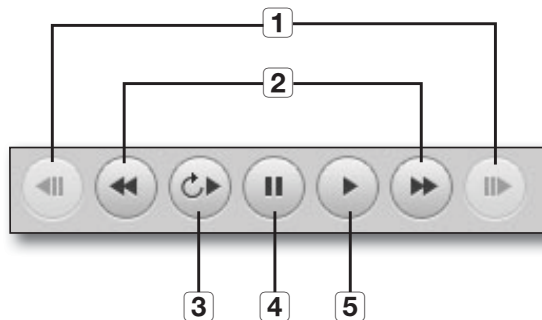
Item		Description
1	Display Pane	Shows the video.
2	Video control buttons	Controls the current event playback.
3	Time Selection	Plays video of the selected time.
4	Event Information	Shows the event information.
5	Input field for remarks	Enter the measures taken or remarks regarding the occurred event.
6	Confirm	Confirms and acknowledges the event.
7	Alarm Details	You can selectively record alarm event’s type when confirming the event.
8	Playback by time	Moves to the selected time.

# live viewer

	Item	Description
9	Video Control	Controls digital zooming of the player screen.
10	Linked Camera	For a sensor event, the video of the camera connected to the camera video/sensor specified as the action (output) type in event action can be selected for viewing. For a camera related event, the camera image specified as the action (output) type in the camera video/event action of the generated event can be selected for viewing.
11	Exit	Closes and exits the Instant Player. If [Confirm] button is not clicked, exiting the player does not confirm the event.

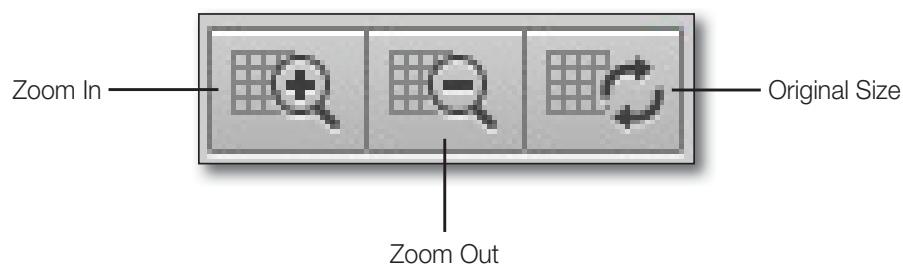
- ! Recorded video footage can be played with Event Viewer, Search Viewer and Instant Player. Note that one saved footage cannot be played with multiple viewers at the same time.

## Names and Functions of Video Control Buttons



1	Step by frames
2	Forward/backward fast play
3	Play from event time (reset to event time)
4	Pause
5	Play

## Video Control / Zoom In / Zoom Out Buttons




## LIVE VIDEO SCREEN

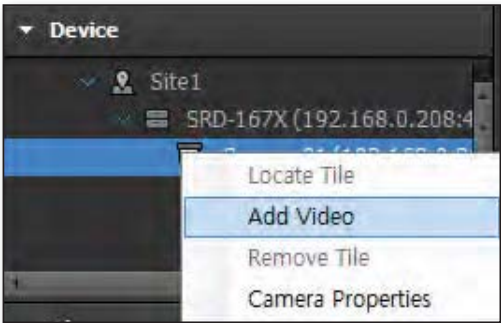
Live feed from the connected device is displayed in the selected tile.

### Monitoring by Selecting Cameras

**To display video feed from a camera on an unoccupied tile:**

- Double click a camera from the device tree to display its video feed on the first unoccupied tile.
- Select a tile, and open the context menu to select <Add Video>.

- 
- In case of using multiple monitors, it is added to the monitor which is activated.
  - When there's no empty tile, the video is displayed on the focused (selected) tile.




**To display video feed from a camera on a specific tile:**

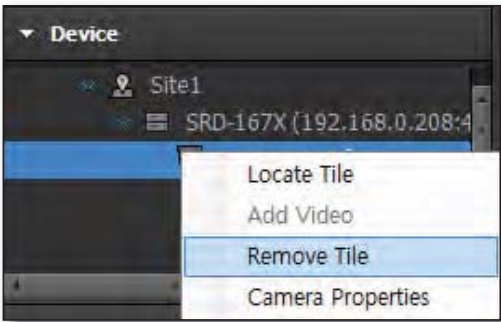
1. Select a camera from the device tree.
2. Drag it and drop on a desired tile.

**To change the video tile:**

1. Select a tile.
2. Drag it and drop on a desired tile.  
Selected two tile's video display swaps each other.

**To remove video feed from a tile:**

1. Select a tile or camera to delete and right click on it.
  - Or, press the [Delete] key of the keyboard to promptly delete.
2. From the context menu, select <Remove Tile>.  
The selected camera's video is removed from the tile and it becomes unoccupied.
3. To remove all video feeds from every tile, click [  ] button on top of video pane.  
Entire tiles become unoccupied.



## Using Shortcuts

Shortcut keys make SSM even more more user-friendly.

- To open videos using a shortcut key

- 1) Press the <Alt> key. (Keep the 'alt' key pressed before pressing the <Enter> key.)
- 2) Input a number key.
- 3) Press the <Enter> key to open the selected video.



- Check the shortcut key definition in "**Configuration Manager**".

## Using the Tile Context Menu

---

Select a video tile from the video pane and right click on it to open the context menu.

Click to select desired ones from the appeared list of available menu items.

### Remove Tile

Removes the video from the selected tile.

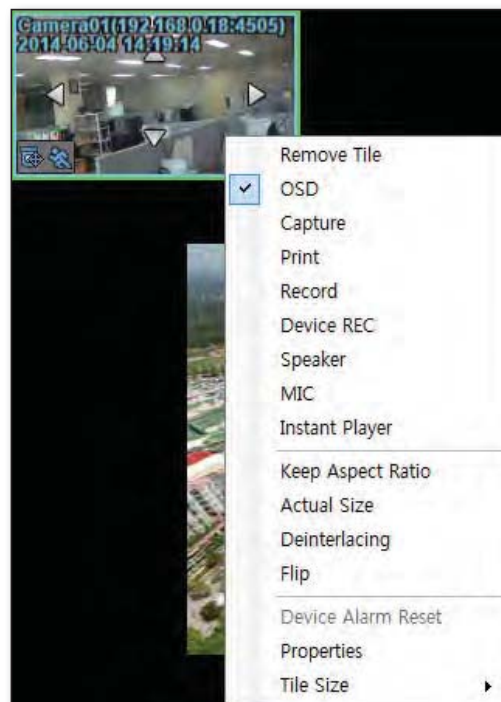
### OSD

Sets whether to display on-screen display menu and icons on the video screen, such as date, camera name and other information.


It acts the same to that of the [  ] button on top side of video pane.



- For OSD information selection, check the item in the <**OSD Display**> selection menu of <**Environment**>. (Page 142)



Capture

Captures and saves the currently selected tile’s video image in the specified destination file path. You can select the file format when specifying the path. It acts the same to that of the [  ] button on top side of video pane.


To save the captured screen:

1. Select a tile to be captured.  
"Capture" window appears.
- Depending on system configuration, saves immediately without displaying the screen capture setup step.
2. In <Display Information>, check to select information items to be saved with the captured image.
- Camera Name : If checked, saved capture contains the camera name at the top of the image.

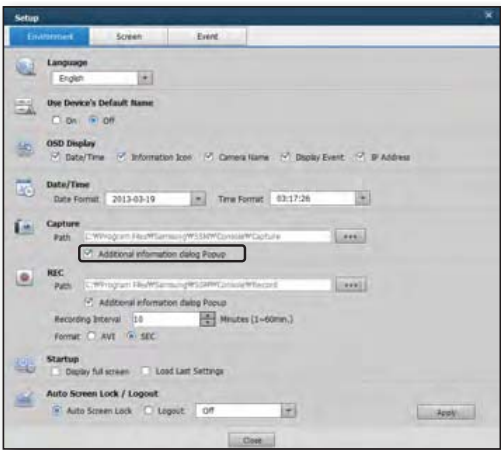
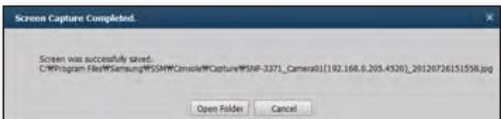
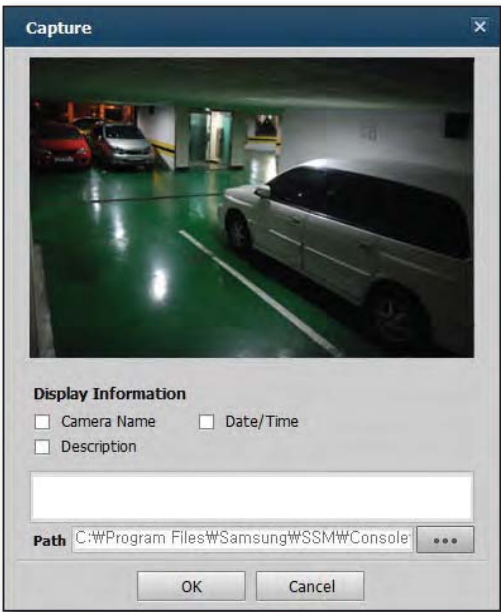
• Date/Time : If checked, saved capture contains the time captured at the top of the image.

• Description : If checked, saved capture contains the description recorded in the Description text field.

■ Up to 50 characters can be entered.
3. When done with setup, click [OK] button.  
A popup saying save completed appears.
4. To check saved capture file, click [Open Folder] button.


- 

■ If <Additional information dialog popup> option in "Environment > Capture" is selected, every capturing prompts with file path and image information on the popup dialog.
- If not selected, capturing directly saves the captured image without prompting with additional information dialog and completion dialogs appears.



# live viewer

## Print

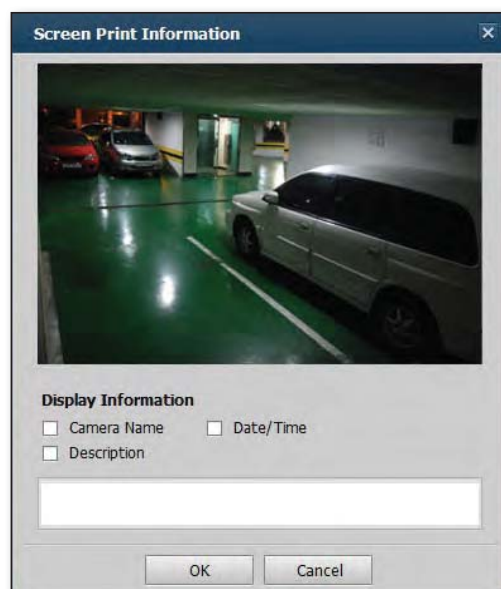
Prints out the selected tile's current video image to the printer connected with your computer.  
It acts the same to that of the [  ] button on top side of video pane.

### To print the screen:


1. Select a tile to be printed.  
"Screen Print Information" window appears.
2. In <Display Information>, check to select information items to be printed with the screen image.
3. Click [OK].  
Print window of the printer connected to your computer appears.



- For further details on <Display Information>, refer to "Capture". (Page 113)



## Record

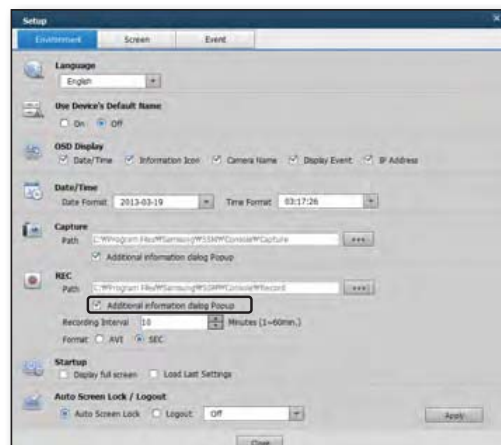
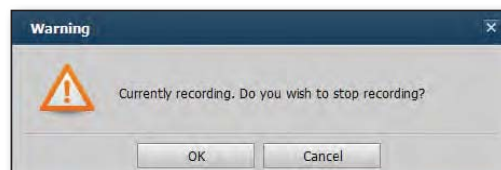
Starts and stops recording of the currently selected tile.  
It acts the same as the [  ] button on top side of video pane.

### To start recording:

1. Click <Record>.  
The "Record" window appears.
  - Depending on system configuration, records immediately without displaying the record setup step.
2. Set the file path and click [OK] button.  
The record indicator appears on the tile and starts recording.
3. To stop recording, click <Record> again.  
A "Warning" dialog appears.
4. Click [OK].  
Unchecking the checkbox in front of <Record> stops the recording.




- If <Additional information dialog popup> option in "Environment > REC" is selected, every recording prompts with file path on the popup dialog.




## Device REC

Starts or stops recording onto the device connected to the tile's camera.  
It acts the same as the [  ] button on top side of video pane.

## Speaker

Transmits or stops Transmitting sound from the selected camera.  
It acts the same to that of the [  ] button on top side of video pane.

## Microphone

Produces sound through the microphone at a remote device.  
It acts the same to that of the [  ] button on top side of video pane.

## Instant Player

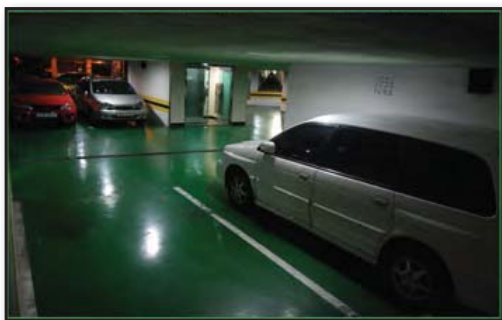
Displays the Instant Player window for the selected channel.



- Only playable if the device contains recorded footage data.
- For further use of the Instant Player, refer to "**Instant Player**". (Page 109)

## Keep Aspect Ratio

Keeps original video's aspect ratio.  
If not selected, the video is filled into the video pane.



< Variable Aspect Ratio >



< Keep Aspect Ratio >

## Actual Size

If selected, the video is reset to the original size.  
If the video's size is bigger than the screen, you can move it with mouse dragging.



## Deinterlacing

Sets or cancels deinterlacing of the tile's video.

## Flip

Flips the video vertically.

## Fog Removal

The fog removal menu is displayed for cameras supporting the fog removal function.

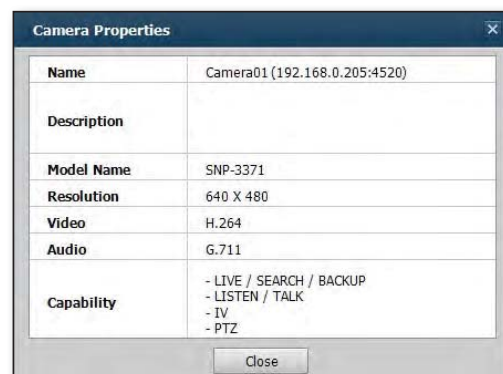
- You can select Off / Auto / 1~10.

## Device Alarm Reset

Initialize the alarm settings.

## Properties

Shows the selected camera's property information in a pop-up window.




## DIGITAL ZOOM

---

Digital zooming allows the enlarging of the video as if using a magnifier. It works on the displayed image by enlarging it digitally, which is different than optical zooming of lens. Digital zooming provides magnification up to 16 times of the original.


### Setting Digital Zoom Area

1. From the top side menu, click [  ] button.  
It switches to digital zooming mode, and every clicking magnifies the image by 50%.
2. Click a desired video and then drag it or click Zoom In button for further zooming.  
Enlarged image is centered by the point you clicked.  
When an area is selected by dragging, the selection fills the screen.






## Digital Zooming Out

1. From the top side menu, click [  ] button.
2. Click a video.  
Reduced image is centered by the point you clicked.  
Every clicking of Zoom Out button reduces the image by 50%.



## Exiting Digital Zoom

1. From the top side menu, click [  ] button.
2. Digital zooming ends, and the video is reset to the original.

## Moving Video Area with Pan Cursor

1. While in digital zooming, click on the zoomed area marker shown near the bottom of digital zoom screen.
2. While holding mouse button, drag to move it to a desired area.



< In Digital Zooming >




< Released Digital Zooming >



- If clicked Zoom In/Out button, it resizes by 50%.
- Restoring to the Original Size exits digital zooming.



## Switching to Full Screen Mode

1. From the top side menu, click [  ] button.  
Only the video pane fills the screen.
2. To exit the full screen mode, press [Esc] on the keyboard.

## Running Sequence

This function enables an automatic sequence display of channels in a pre set time.

Used when there are more connected channels than the current screen splits. It switches to the next set of channels according to the current screen split mode.

1. From the top side menu, click [  ] button.  
Runs sequenced display in the current split screen mode.
2. To exit sequence mode, click [  ] button again.



- While in sequence mode, Map Layout becomes unavailable.
- The Sequence mode supports split screen mode up to 16-splits. If you configure Sequence mode to include a layout having more than 16 splits, actual Sequence mode operation limits playback to 16-split mode.
- You can define the order of layouts and their dwell time for sequence mode in "**Setup > Screen > Monitor**". (Page 141)

## Fish-Eye View Mode

For Fish-Eye cameras, the Fish-Eye View mode context menu is available.

- Over View : Original image
- Panorama : The panorama image split to top and bottom can be moved independently.
- 4-way split screen : Each part of the 4-way split screen can be moved independently.
- Single View : Default view. The image is displayed in a single view.
- 1 Over View + 3Rectangles : The screen is organized into an over view and 3 way split images. Each part can be moved separately.

## Use of Panomorph Lens

The function supports a viewing angle of 360° using the mouse in the video tile of the camera on which the Panomorph lens is enabled.

1. Pan/Tilt Operation: Click on a tile and drag it to move the camera along the mouse drag.
2. Zoom Operation: Right-click and drag the mouse up or down to zoom in or out.
3. The PTZ panel can be used like a conventional PTZ camera.
4. It supports the Area Zoom and Preset functions like a conventional PTZ camera.
5. It supports the zoom function using the mouse wheel like a conventional PTZ camera.
  - Perimeter : This is a panorama image split into top and bottom.
  - 4-way split screen : Each part of the 4-way split screen can be moved independently.
  - Single View : Default view. The image is displayed in a single view.



- When printing the Panomorph or Fish Eye image, the position set as the home position in CM is printed in single view by default.

## Using Shortcuts

Shortcut keys make SSM even more more user-friendly.

- To open videos using a shortcut key

1) Press the <Alt> key. (Keep the 'alt' key pressed before pressing the <Enter> key.)

2) Input a number key.

3) Press the <Enter> key to open the selected video.



- Check the shortcut key definition in "**Configuration Manager**".

- Controlling PTZ Camera with Keyboard

Select a PTZ camera and press an arrow key to move the PTZ camera in the selected direction.

# event viewer

It provides viewing of real-time events and searching / playing events of devices.  
Select **[EVENT]** menu of the viewer selection tab on the top right side of SSM Console.  
Or, select **[EVENT]** viewer on login screen of SSM Console.

## NAMES AND FUNCTIONS OF EVENT VIEWER



Item		Description
<b>1</b>	Live Event / Event Search Tabs	Select either one of real-time event and event search.
<b>2</b>	Device List	Select a device to display events of the selected device in the event list.
<b>3</b>	Sensor list	Select a sensor to be displayed in the event list window.
<b>4</b>	Alarm list	Select an alarm to be displayed in the event list window.
<b>5</b>	Event Type	Shows selected type of events only in the event list.
<b>6</b>	Scroll Lock, Clear List	Locks the list not to scroll, and clears all events listed.

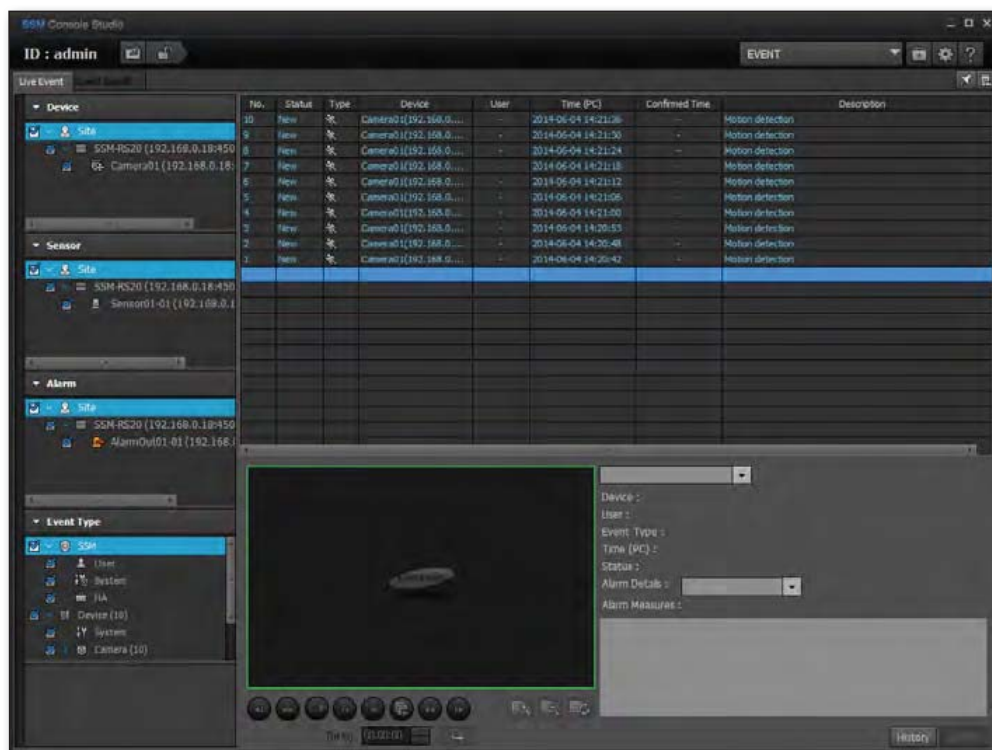
Item		Description
7	Event List	Shows events, click column header to sort events by the selected one.
8	Event Details	It displays the detailed information and video of the selected event. <ul style="list-style-type: none"> <li>It displays the information of all events.</li> </ul>
9	Confirm	When clicked after confirming the event searched, acknowledges the event. All events other than log, SSM (User, System) and Device (System, Alarm Out) can be confirmed as cleared event.
10	History	Shows the event history of the selected.

- The event viewer maintains the tree selection setting and applies it to the tree.

## EVENT SEARCH

### Viewing Live Events

You can check real-time events in the event list.

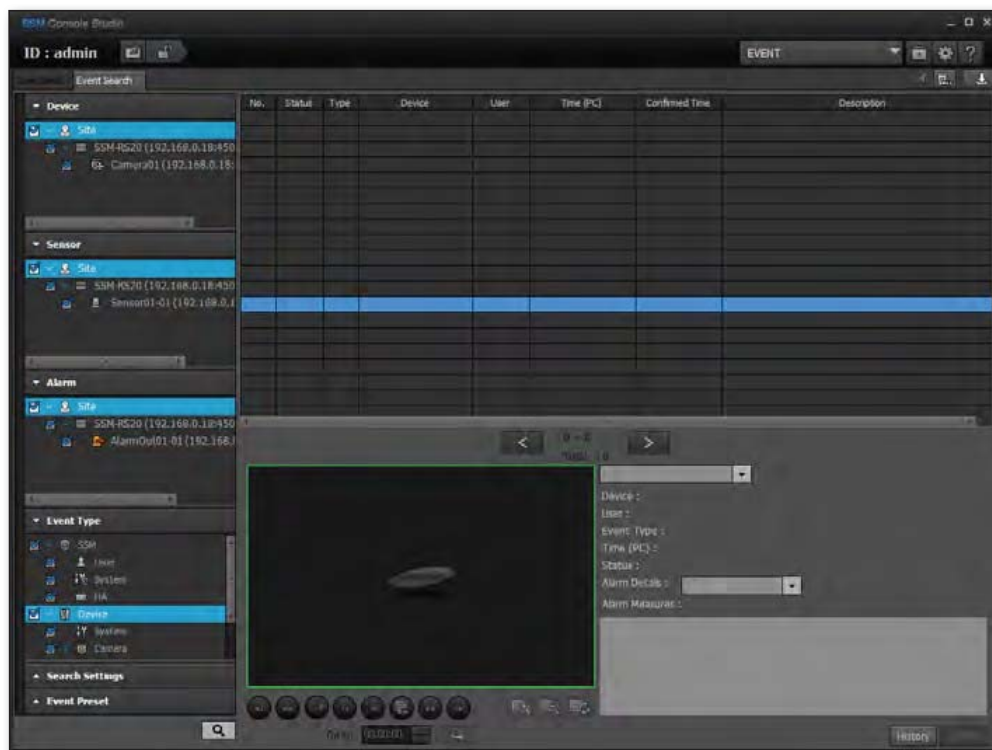


- For further details on checking events, refer to "Searching Events". (Page 122)

# event viewer

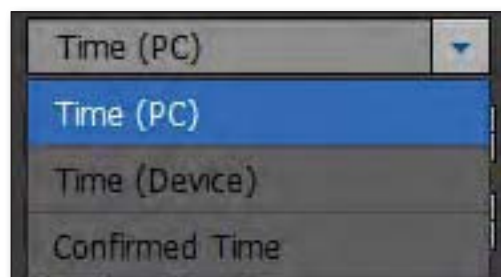
## Searching Events


Click Event Search tab to display event search menu.  
You can specify event type and time for search.



1. Select desired event types by checking the checkboxes.
  - SSM : User, System
  - Device : System, Camera, Sensor, Alarm Out
    - Camera : System, Movement detection, Video loss, Intelligent image analysis, Pass, Entry, Exit, Appearing/Disappearing, Tempering, Tracking, Face recognition, Audio detection
  - Refer to "HA Event" for details of "HA". (Page 69)

2. Filter by time to search logs.
  - Time (PC) : You can search for occurred time.
  - Time (Device) : You can run event search based on the device time.
  - Confirmed Time : You can run event search based on the confirmed time.



3. Use calendar to specify search date.
4. Specify the start time and end time.
5. Click the [  ] button.  
Events match the search criteria are listed.

- Recorded video footage can be played with Event Viewer, Search Viewer and Instant Player. Note that one saved footage cannot be played with multiple viewers at the same time.
- Maximum of 10,000 event search results are displayed.

Event Preset

Save the event search condition and select a saved search condition to search the events. The registered list can be sequentially replayed.

1. Right click the mouse in the <Event Preset> section and select <Save Preset>.
2. Input the name of the preset of search condition and time of search then click the <Save> button.
3. You can change or delete the saved event presets.



Consecutive playing of events

Select events in the list to be played consecutively.



1. Select events for consecutive playing from the list of searched events.
2. Select an event and right click on it to select <Sequential Playback>.
3. The selected events will be consecutively displayed on the window.

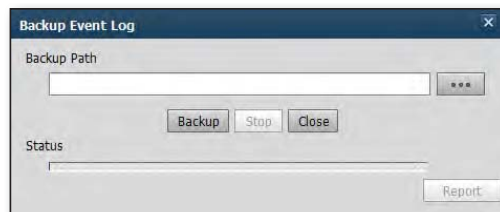


# event viewer

## Backing up event logs

You can backup all the events searched in the list.

1. Press the [  ] button.
2. When the <Backup Event Log> window appears, press the [  ] button to set the backup path and then press the [ Backup ] button.
3. When the backup is finished, press the [ Report ] button to check the full event details and a stat report.
4. As needed, use shortcut buttons on the top side of the report to print, or save the report as an Excel, PDF or Word file.

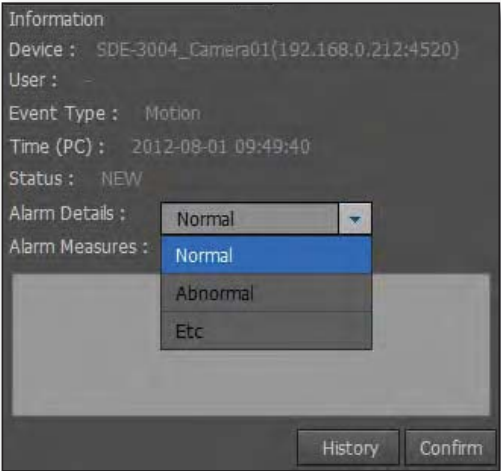




Confirming Events

You can check details of event searched in the list, and confirm it to end the event situation.

1. Double click an event to see its details from the list.  
In the event details pane, the event video is played as well as its details.
  - Or, select an event and right click on it to open <Instant Viewer>.
  - For further information on playback control, refer to "Instant Player". (Page 109)
2. Check event details and set <Alarm Details> to either one of <Normal>, <Abnormal> and <Etc>.
3. Describe the measures taken.
4. Click [Confirm] button.  
Once confirmed, it is marked in the list.



History

For confirmed events, you can see the confirmed details of the selected event from the list.

1. Select an event to see its history from the list.
2. Click [History] button.
3. Check event confirmation details.

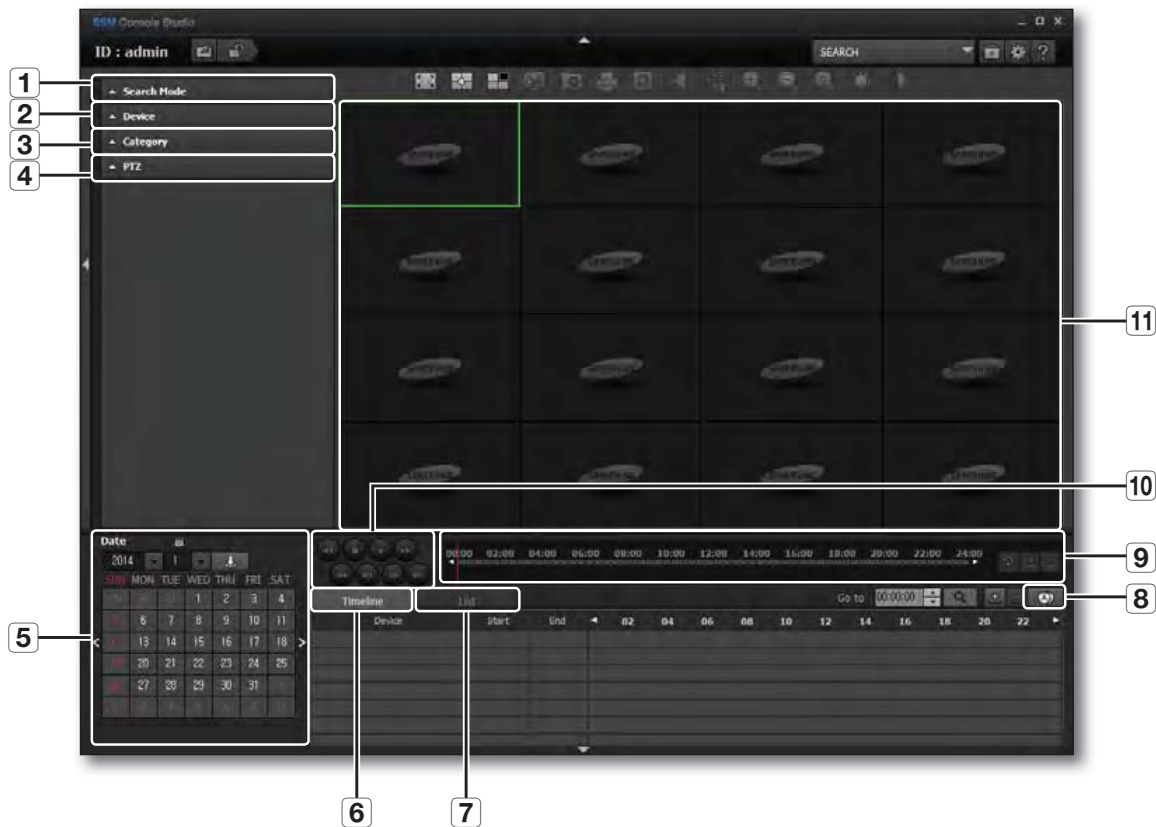


-  If user A described intrusion path in the Alarm Measures for an event, and user B added notes on further details of taken measure and confirmed that event, such process of alarm measure can be checked afterwards with History function.

# search viewer

You can search and play footages stored in your local computer or in the device.  
Select **[SEARCH]** menu of the viewer selection tab on the top right side of SSM Console.  
Or, select **[SEARCH]** viewer on login screen of SSM Console.

## NAMES AND FUNCTIONS OF SEARCH VIEWER



Item		Description
1	Search mode	You can select Basic, Advanced, Masking, Folder or POS as the search mode.
2	Device List	Shows devices that can be searched over.
3	Category	Shows available event types for search.
4	PTZ	The PTZ panel is enabled to use PTZ when replaying the recorded file on a camera set up to use the Panomorph lens. The PTZ, AreaZoom, and preset functions can be used. ■ Refer to "Use of Panomorph Lens" for more details. (Page 118)
5	Date/Time	Dates with found matches from the selected device is marked on the calendar.
6	Timeline	Sets the search result list to timeline format.

Item		Description
7	List	Sets the search result to a list of events sorted by events.
8	Backup	Sets the time period for backing up searched data.
9	Detailed Timeline	Use this timeline slider to move selected search result's specific moment, or zoom in/out the timeline.
10	Playback Control	Playback controls for playing back search result.
11	Display Pane	Shows the video of searched result.

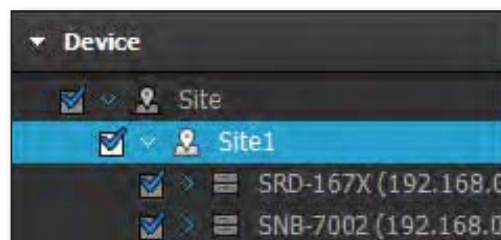


- The context menu appeared when right clicked on each menu item is the same to that of Live Viewer.

## Device List


From the device list, you can select desired device for your search.

1. Search desired device from registered devices.
2. Refine your search by checking checkboxes of groups or devices.



## Date Search

If selected device contains recorded data on a date, it is marked on the calendar.

1. Select a device and click [  ] button.
2. Select year and month for your search.  
If a date has recorded data, it is marked in color.
3. Click to select a date to be searched.  
Detailed time period of recorded data is shown in the search result area.



# search viewer

## Category


You can set the search criteria with event types.

1. Click Category.  
Category items appear.
2. Select desired search category items.
  - Video Loss, Motion Detection, Video Analysis, Audio Detection, Sensor, Continuous, Manual : Searches selected items for the highlighted tile in the video display pane.
3. Search results matching selected items are shown in timeline.



## Digital Zoom

Digital zooming provides enlarging the video as using a magnifier.

1. Click a desired camera's video.
2. Use digital zoom button to magnify/reduce desired portion of the video.
3. Brightness and contrast can be adjusted too.
  - Click [  ] button to reset to the original.




- For further details on using digital zoom, refer to "Digital Zoom". (Page 116)



## Playing Searched Data

### Setting the playback point of time

In the timeline of search result, the red vertical line means the current playback point of time.

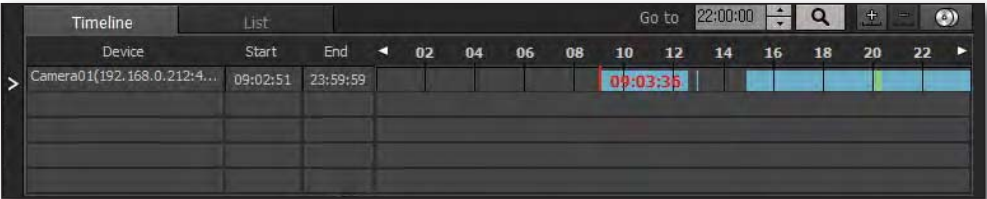
1. Set the time to play.
2. Click [  ] button on the right.  
The point of time for your playback is set to the chosen time.




- Or, drag the red strip or click on a desired point in the timeline to set playback point of time.
- The time display shows the current playback's record time.

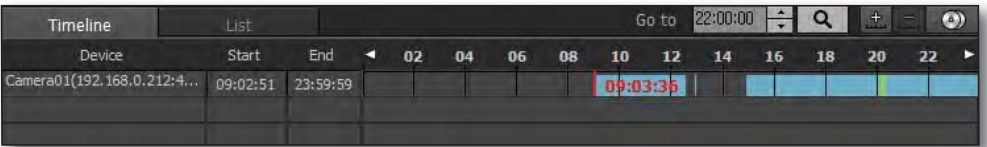
## Selecting Camera for Playback

By default, the search result shows 5 channels in the list. You can resize it to show more or scroll down it. Video playback supports up to 16 simultaneous channels.



1. Double click desired camera in the search result.
  2. Selected camera's video fills the first unoccupied video tile.
-  Or, drag a camera from the search result to a tile and drop in the video display pane to add the selected channel's video to the tile.


## Enlarging the Timeline Scale




< 24 Hours >



< 1 Hour >

1. Click [  ] button in the top right corner of the search result area.
2. It enlarges the timeline scale of searched data from 24 hours to 5 minutes, the button becomes disabled when the maximum limit is reached.

## Reducing the Timeline Scale

1. Click [  ] button in the top right corner of the search result area.
2. It reduces the timeline scale of searched data from 5 minutes up to 24 hours, the button becomes disabled when the minimum limit is reached.

# search viewer

---

## Moving the playback point

When a search result is found, the playback point is set to the time currently selected.



1. Select a search result.  
The playback point is set to the time currently selected, marked with a red vertical line.
2. Drag the red vertical line to a desired point of time in the timeline.  
When in enlarged timeline, you can use < ⏮, ⏭ > arrows on both ends of the timeline to move backward/forward.

## Playback Control

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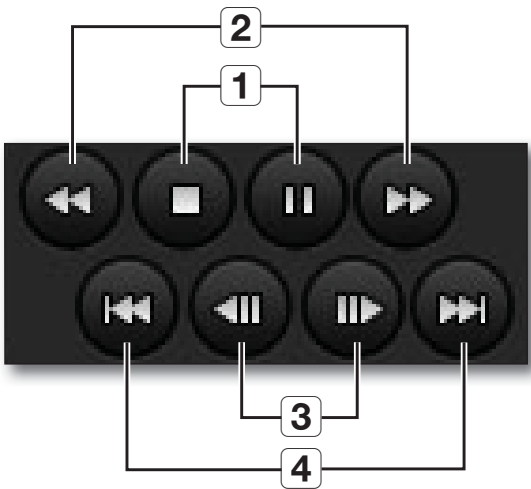
Pause or control playback speed.

## Playback



1. Select a search result and click [ ⏮ ] button.  
In the playback progress bar, the current playback speed is indicated.
2. Use playback control buttons to control playback faster or slower.

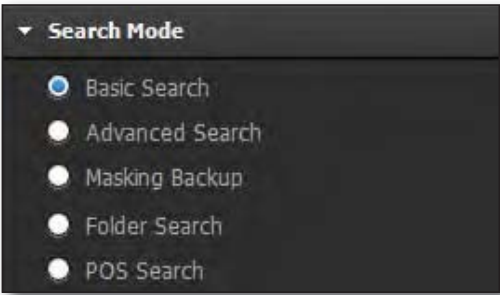
Names and Functions of Playback Controls



1	Start / stop playback, Pause
2	Faster forward / backward playback Sets the forward/backward playback speed to x1, x2, x4, x8, x16, x32, x64, and then x1 again on every click. <ul style="list-style-type: none"> <li>When in paused, it switches to slower forward / backward playback button.</li> </ul>
3	Step Forward / Backward Moves the video frame by frame. While in playback, these buttons are disabled.
4	Skip Forward / Backward Skips to previous or next event. While in playback, these buttons are disabled.

Selecting the Search Mode

Click a radio button to switch to the Basic, Advanced, Masking, Folder or POS search screen.



# search viewer

## ADVANCED SEARCH


If there are recorded data, they can be searched according to the search condition.

### Smart Search

A specific section of the image is selected as ROI, Exclusive Zone, or Virtual Line to search the events that have occurred during a specific time band.

1. Switch to the <**Smart Search**> model of <**Advanced Search**> and select the device to search in the <**Device**> list.

- Smart search is a function supported only by the recording server.

2. Select the year and month to search and click the [  ] button.

Dates containing data are displayed. When a date is selected, the data are displayed in the time-line list.

3. Select the data from those displayed in the time-line list.
4. Adjust the time-line bar to set the preview image.

- Time : Select the beginning and end time for the search.

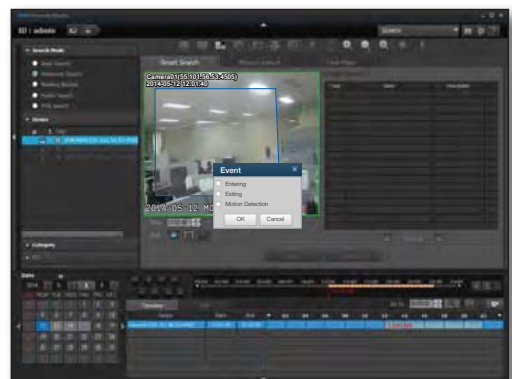
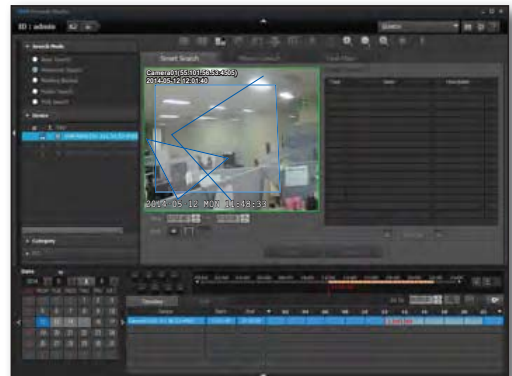
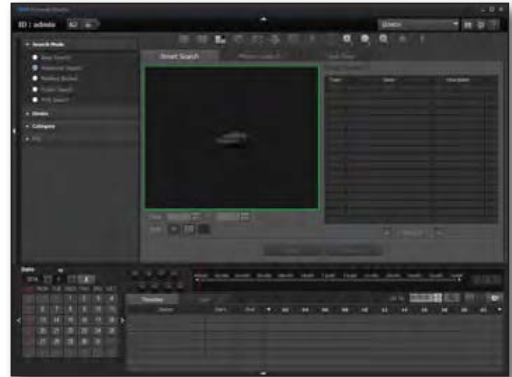
- The difference between the beginning and end time can be up to 24 hours.

- Setting the Search Region


- ROI (Region of Interest): Designate ROI on the image window to detect the events within the region. Specify a point on the image window with the mouse and draw a line to specify the region. Up to 11 vertices are allowed within an interior angle of 180 degrees. (Up to 32 ROI's can be specified.)

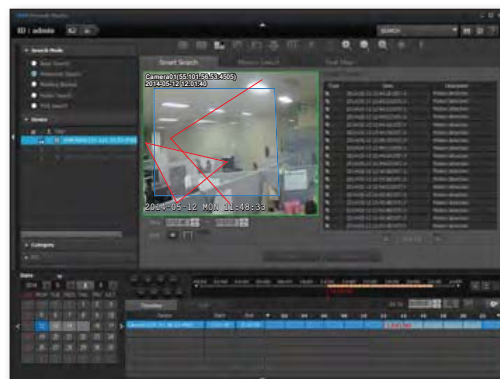
- Click the right mouse button to complete specification of ROI.  
(ex.: To draw a rectangle, specify 4 points and then right click the mouse)

- After a region is set, the event setting window is displayed. Select the event type to detect of three events (multiple selections allowed) and click the <**OK**> button. The region setting is canceled when <**Cancel**> is clicked.





- Exclusive Zone (Region of Non-interest) : Specify the exclusive zone on the image window to exclude the events within the region in the search result. Specify a point on the image window with the mouse and draw a line to specify the region. Up to 11 vertices are allowed within an interior angle of 180 degrees. (Up to 32 ROI's can be specified.)
    - Right click the mouse to complete specification of ROI.  
(ex.: To draw a rectangle, specify 4 points and then click the right mouse button.)
  - Virtual Line : Draw a virtual line on the image window. Motion is searched when a movement from the line to the set direction is detected.
    - Select Left or Right. They can be selected simultaneously to detect motion in both directions.
-  ▪ For the ROI, exclusive zone and virtual line, place the mouse on the drawn region and right click the mouse to change or delete the region.
5. Click the **[Search]** button.
  6. Check the result of smart search and double click the search result to replay the selected image.
    - Up to 500 smart search lists can be checked. Click the [◀/▶] button to navigate between pages.
  7. Click the **<Export>** button to save the search results in an excel file.




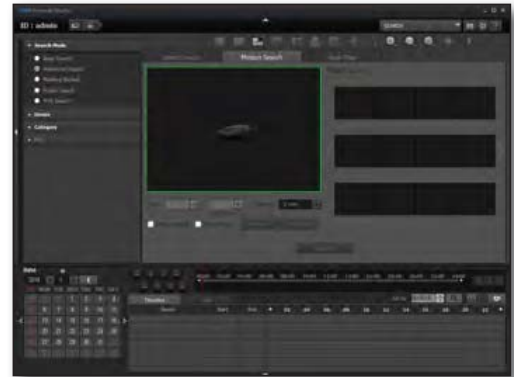
### Using Smart Search

1. Register the SUNAPI camera in the recording server. (Refer to SUNAPI supporting camera specification.)
2. Set the motion event of the camera to **<On>**.
  - The camera event can be set in the camera Web page.
    - Motion event On, no region setting (detection of motion in all regions.)
    - Accessing the camera Web page: Select a camera in the Registration > Device menu of the Configuration Manager and click the **[Device Setting Page]** button of the device information.

# search viewer





## Motion Search

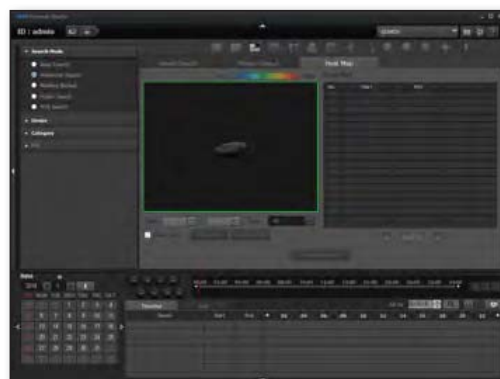
1. Switch to the **<Motion Search>** mode of **<Advanced Search>** and select the device to search in the **<Device>** list.
2. Set search year and month, and click [  ] button. Dates with recorded data are marked in the calendar. Select one to display data in timeline list.
3. In the timeline list, select a desired data item.
4. Use timeline bar to control preview display.
5. Specify the start time and end time for thumbnail view.
  - Up to 60 minutes can be assigned with start and end times.
6. Set the time interval.
  - Search Region Setting
    - Specify the search region by dragging the mouse to the right and down. Cancel the selection by dragging the mouse in the reverse direction.
    - The region can also be specified by clicking each cell.
    - All regions are selected or canceled by clicking **<Select All>** or **<Cancel All>**.
  - In case the selected device supports motion detection, check **<Motion Search>** checkbox for motion search. For other devices not supporting motion search, the button is disabled.
7. Click [ **Search** ] button.
8. Select a searched thumbnail to start playback in preview screen automatically.



## Heat Map Search

Select a region on the image to detect the motion of an object in a specific time band and display how many movements were detected in each region.

1. Switch to the <Heat Map> mode in <Advanced Search> and select the device to search from the <Device> list.
2. Select the year and month to search and click the [  ] button.  
Dates containing data are displayed. When a date is selected, the data are displayed in the time-line list.
3. Select the data from those displayed in the time-line list.
4. Adjust the time-line bar to set the preview image.
5. Select a search region and specify the search time and search format.
  - Setting the Search Region
    - Specify the search region by dragging the mouse to the right and down. Cancel the selection by dragging the mouse in the reverse direction.
    - The region can also be specified by clicking each cell.
    - All regions are selected or canceled by clicking <Select All> or <Cancel All>.
6. Click the [View Heat Map] button.
  - After the heat map search is completed, different colors are displayed according to the number of movements detected.
    -  : Redder colors means more movements detected.
  - Check the results of the smart search and double click the search results to replay the selected image.
  - Up to 500 smart search lists can be checked. Click the [  /  ] button to navigate between pages.



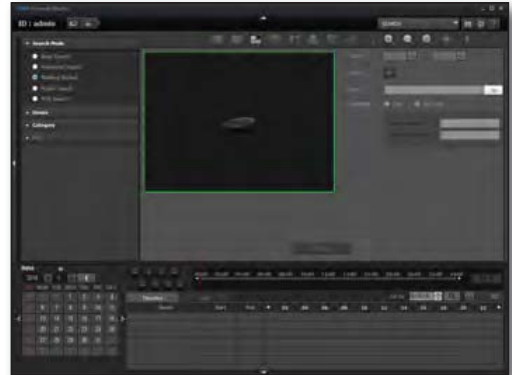
# search viewer

## MASKING BACKUP


The mask operating for a specific period is added to the image to back up the image and audio.

### Masking Backup

1. Select **<Masking Backup>** mode in the search mode.
2. Set the search condition.
  - Time: Enter the time for backup.
  - Region: Set the mask region to back up.
  - Path: Specify the backup path.
  - Password: Select whether the password will be used and set the password.  
If password is to be used, set the password and confirm it.
3. Click the **[Backup]** button.



### To Set the Mask Region

1. Click [  ].
2. To set the mask region, click the position of the upper left vertex of the rectangle on the image window, move the mouse then click the point of lower right vertex of the rectangle.
3. Set the mask operating time and click the **<OK>** button.
  - When the mask region and mask operating time are set, the recording of the selected region for the selected time is not saved.
  - Up to 32 masks can be set.

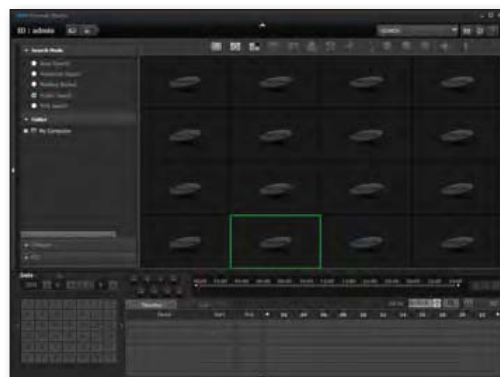


## FOLDER SEARCH

Search for the data in the folder which contains the data that were saved as SEC files in the PC used for SSM Console execution.

### Searching Folders

1. Set to Folder Search mode and select a folder from <Folder> list.  
Resulting footages are automatically listed in the timeline list.
  2. Select a desired data from the timeline list.
  3. Use playback control to play selected data.
- If the selected folder has more than 64 SEC files, then the popup window will ask you to select the files to be played. But if you double click on the timeline, you can play a maximum of 16 sets of video at a time.
  - If the SEC file you want to play video for has a password, then the popup will prompt you to enter the password. You must enter the correct password before you can play the video.




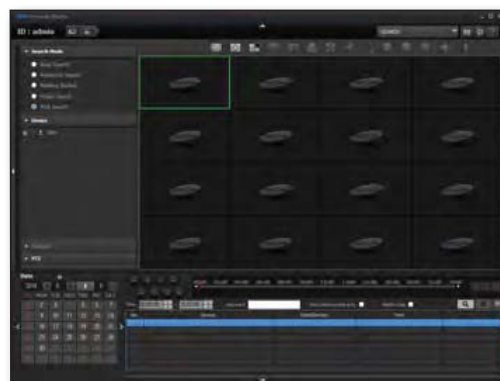
## POS SEARCH

You can search POS records based on time and text keyword.

- The Search function is available only for the device supporting the POS function.

### Searching POS data

1. Set to POS Search mode and select date and time for your search.
2. Enter a search <Keyword>.
3. Set the search condition.
  - Find whole words : If not selected, blanks between keywords act as AND operator.  
Ex) If entered "Cash 2500", finds data contains both "Cash" and "2500" from the database.
  - Match case : If selected, the search becomes case sensitive, distinguishing upper and lowercase letters.
4. Click [  ] button.






# search viewer

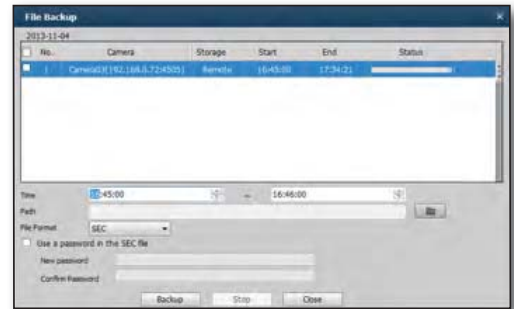
## BACKUP

You can back up the search data onto the computer that is running the program.

### Backing Up Search Data

You can back up searched footage of selected period into a desired folder.

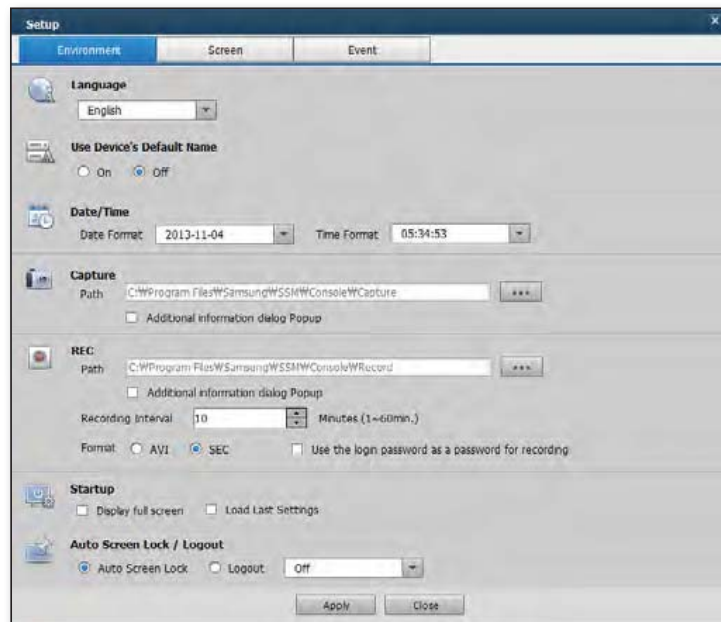
1. Click [  ] button.  
The backup pop-up appears.
    - Backup is only available for devices currently connected.
  2. Select a channel from the backup window.
  3. Click [  ] button to browse and set the desired backup storage path.
  4. Specify the start time and end time.
  5. Set the backup file format.  
Backup supports "\*.sec" and "\*.avi" formats.
    - AVI : A general video format. Can be played with Windows Media Player.
      - A new AVI backup file is created in the following cases.
        - When you change the video's resolution
        - When you change the audio or video codec
        - When the file size is greater than 2GB
    - SEC : Samsung's proprietary format. Embeds self-executable video player with data.
      - Check <Use a Password in the SEC file> to set the password.
-  ■ The Microsoft Windows Media Player does not support AVI files having resolutions higher than 3Mega pixels. For high-resolution videos of more than 3 Mega pixels, SEC backup is recommended.
6. Click [**Backup**] button to start backing up.
  7. Click [**Stop**] button to stop backup in the middle.
  8. To end backup, click [**Close**] button.  
The backup stops and saves the file backed up at the moment, and closes the backup window.



# setting console

## SETTING SSM CONSOLE

### Environment



### Language

Sets the language used for Samsung Security Manager's user interface.

### Use Device's Default Name

When it is checked, the name of the camera registered to the device is displayed in the list or the screen.

### Date/Time

Set the date and time format displayed on OSD.

Date / Time indication is based on the time of running the pop-up window.

- Date formats
  - 2010-04-19 (yyyy-mm-dd)
  - 04-19-2010 (mm-dd-yyyy)
  - 19-04-2010 (dd-mm-yyyy)
- Time formats
  - 08:06:04 (hh:mm:ss)
  - 08:06 (hh:mm)




# setting console

---


## Capture

You can set the captured image file's path.

- Path : Shows the current file path, click [  ] button to set to another file location.
  - Click <Additional information dialog popup> to display saved path and additional capturing information on a popup window separately when capturing a monitoring window.

## REC

Set the selected recording data's file path and recording interval.

- Path : Shows the current file path, click [  ] button to set to another file location.
- Recording Interval : Sets how long the recording will continue.
- Format : Sets the file format for recording.
  - Click <Additional information dialog popup> to display saved path and additional recording information on a popup window separately when recording a monitoring window.
  - If you check <Use the login Password as a password for recording>, you can use the login password for recording.

## Startup

Configures the screen display and its settings when the program is started.

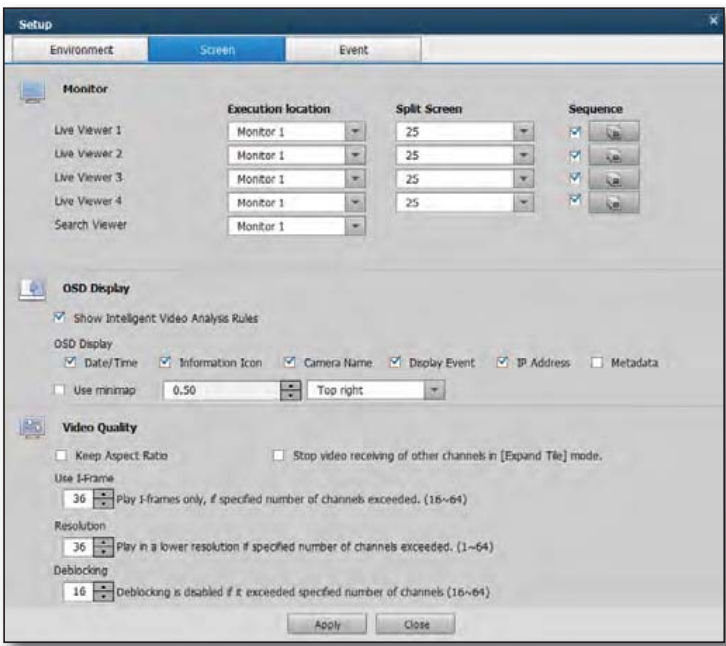
- Display full screen : On the program's startup, it fills the entire screen automatically.
- Load Last Settings : When restarting, it loads the last displayed camera's video layout.

## UI Auto Lock / Logout

- UI Auto Lock : If there is no keyboard or mouse action for the specified period, it locks user interface automatically which prevents unintended access.
- Logout : If there's no keyboard or mouse action for the specified period, it logs out automatically to prevent unintended access.



## Screen



### Monitor

The monitor layout can display up to 100 channels on a maximum of 4 monitors.

### Execution location

Select the number of monitors to connect. Up to 4 monitors can be connected.

### Split Screen

Sets the split screen mode for each viewer / monitor.  
The available split screen modes differ by maximum number of channels and connected monitors.

- !

▪

The default settings may not be appropriate to your configurations; user must configure the system appropriately for proper operations.

# setting console





## Sequence

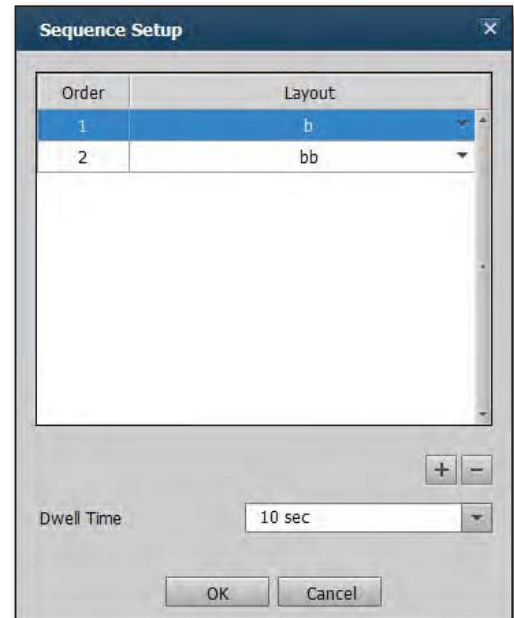
Distributes camera feeds to fit the selected split screen mode in sequenced order automatically, at the specified duration.



- Sequenced mode is available only for a camera layout.

### To define sequence:

1. Click [  ] button on the top right corner of the target monitor.
2. To add a layout, click [  ] button. To delete a layout, click [  ] button.
3. Click <Dwell Time>'s [  ] button and set the dwell time of each layout added.
4. When done with setup, click [OK] button.
5. To apply the sequence mode, check the checkbox in front of the sequence setup button.



## OSD Display

You can select the information (OSD) displayed on the monitor.

- Check the checkbox of <Use mini map> to specify the use of mini map.
  - Adjust the value between 0.3~1.0 to set the size of the mini map.
  - Select upper right/lower right/upper left/lower left to set the position of the mini map.

## Video Quality

### Use I-Frame

Set the number of channels, the I-Frame mode will be applied for more than the specified channels.

It is applied to each monitor of each viewer.

It is used to avoid system overload of multi-channel video monitoring.



#### What is I-Frame?

Video compression methods using H.264 and MPEG4 codecs produce compressed video of one base frame (Intra-frame) and multiple predictions (predicted frames) only containing differences between each frame's previous one.

## Resolution

Set the number of channels, low-resolution will be applied for more than the specified channels for better communication.

It is applied to each monitor of each viewer.

## Deblocking

This specifies the channel number to begin deblocking.

It is applied to the monitor of each viewer separately.

It is used to prevent overloading of the system during multi-channel video monitoring.



### ■ What is deblocking?

Video compression using the H.264 codec compresses the screen image into multiple blocks.

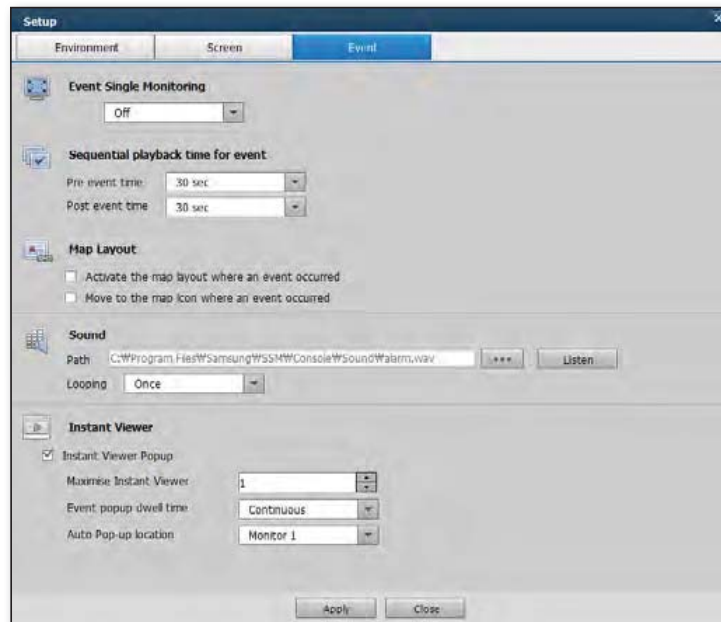
When this is applied, the boundary between the blocks may become visible, degrading the image quality.

Deblocking eliminates this boundary between blocks to improve the image quality.

- Show Intelligent Video Analysis Rules : Sets whether to display Intelligent Video Analysis Rule applied for the video.
- Stop video being receiving of other channels in [Expand Tile] mode. : Sets whether to receive video from channels other than the expanded when viewing one channel in [**Expand Tile**] mode of Live Viewer.

# setting console

## Event



### Event Single Monitoring

Upon an event, the Live Viewer monitoring screen automatically switches to Single mode with the event-generating channel for the specified period, which returns to previous mode afterwards.

### Sequential playback time for event

You can set the consecutive event playing time as the pre/post event time.

### Map Layout

If this option is set and an event occurs while viewing a map layout, the view automatically switches to the corresponding map which contains the event-generating device's icon on it.

### Sound

Set the sound device for the event, and how the sound repeats.

### Instant Viewer

If selected <Instant Viewer>, set the maximum number of simultaneous instant viewers allowed and minimum dwell time of event pop-up dialog.

# SSM service manager

You can check SSM related services, and stop them.

The Service Manager should run while the Samsung Security Manager is running at the same time, and an icon appears in the task tray.

## SERVICE MANAGER

Resides in the task tray, and provides access to Samsung Security Manager services.

### Managing the Services

Select the icon and right mouse click.

Service menu should appear.

You can start or stop services.

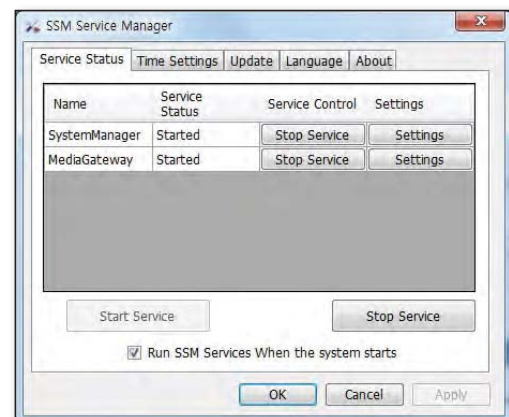
- Start the SSM Console : Runs SSM Console program.
- Start Service : Starts Media Gateway and System Manager services.
- Stop Service : Stops Media Gateway and System Manager services.



### Service Status

Click [**Service Status**] to open SSM Service Manager information dialog.

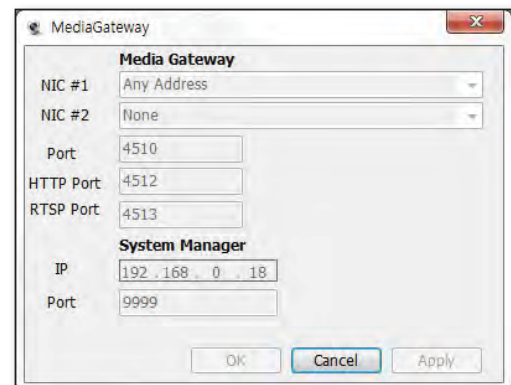
- Start Service : Disabled if the service is running.
- Stop Service : Disabled if the service is stopped.
- OK : Applies the changes, and closes the window.
- Cancel : Does not applies the changes, and closes the window.



# SSM service manager

## Media Gateway

- NIC #1 : The media gateway IP, console, CM, etc. saved in SM DB are connected to this NIC.
- NIC #2 : If it is set, the equipment is connected to the NIC.
- Port : It is the port used for connecting the client.
- Http port : This port provides the CGI Web service to the mobile viewer.
- Rtsp port : The rtsp port provides the image to the mobile viewer.
- System Manger
  - IP : SM IP for the connection to MG.
  - Port : SM port for the connection to MG.



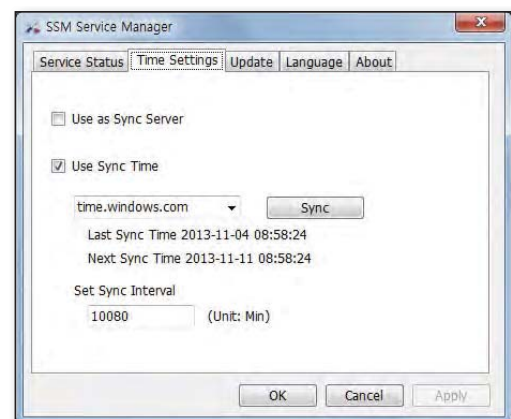
## SystemManager

- Port : The port of the system manager is changed.

## Time Settings

You can set the computer installed with SSM to be the NTP time server, and its checking frequency.

- Operation as a synchronization server : Other PCs or devices are synchronized with the time of this PC.
- Use synchronization : This PC tries synchronization to the input address at the specified interval.

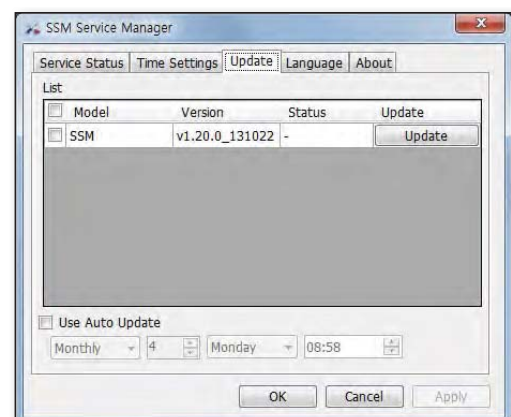


## Updater

If the server has the latest version, the update list will appear. A user can check the release note and the content of the latest updates before deciding whether to proceed with the updates.

Click on the <Use Auto Update> and set the auto update settings.

- When "Automatic Updates" is selected or the 'Update' button is clicked, the updates are automatically performed and patches are executed when the updates are needed.



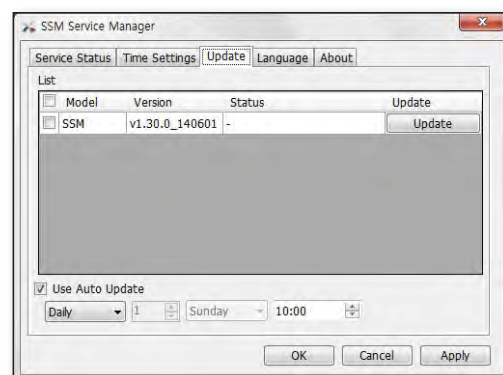
## Automatic Update Setting

Updates can be checked automatically by setting the update checking period.

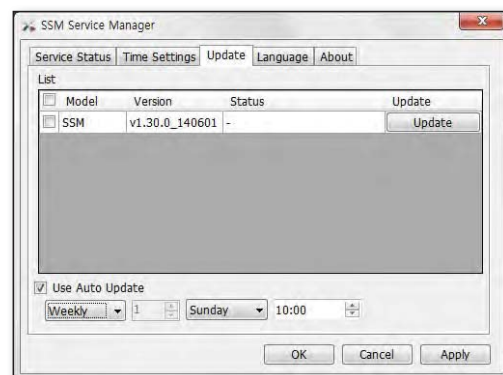
1. Select **[Update]** in **[SSM Service Manager]**.
2. Change the setting in the setting window and click the **[Apply]** button.

### Selecting the Automatic Checking Interval

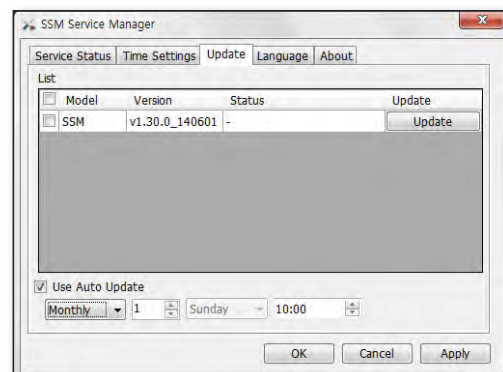
- Updates can be checked for daily.
1. Select Daily.
  2. Select the automatic update time.  
ex.) The figure in the right shows the update set for 10:00 am each day.



- Updates can be checked for weekly.
1. Select Weekly.
  2. Select the day of the week for automatic updates.
  3. Select the automatic update time.  
ex.) The figure in the right shows the update time set for 10:00 am on each Sunday.



- Updates can be checked for monthly.
1. Select Monthly.
  2. Select the date for automatic updates.
  3. Select the automatic update time.  
ex.) The figure in the right shows the update time set for 10:00 am on the first day of each month.

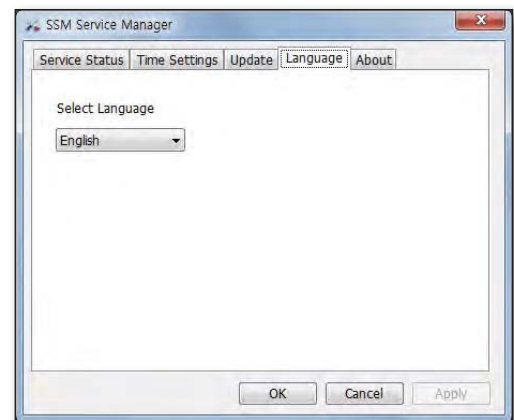


# SSM service manager

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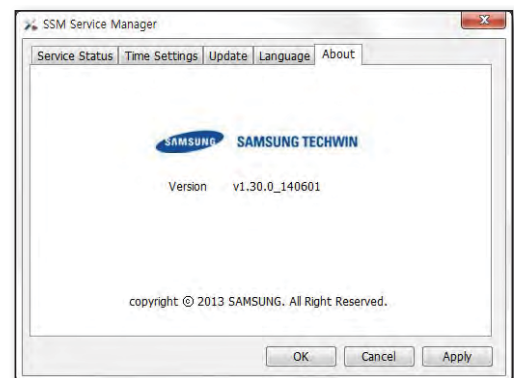
## Language

You can set the program language.



## About

Shows the Service Manager's version information.





# SSM Recording Server

## SSM RECORDING SERVER SERVICEMANAGER

You can check the execution status of the SSM Recording Server related service and terminate it if you want to. You can change the SSM Recording Server related settings.

As soon as the SSM Recording Server runs, the service manager program will run. The task bar will automatically show the icon.

### Service manager

It is in the task bar and manages the SSM Recording Server service.

### Service management

Select an icon and right click with your mouse button on it. Service menu will appear.

You can start or stop the service.

- Start the Recording Server service : Starts the service.
- Stop the Recording Server service : Stops the service.



### Service starts

Click on the **[View the Service Properties]** to launch the Recording Server Service Properties window.

You can check the current status of the Recording Server service.

- Start the Recording Server service : Starts the service.
- Stop the Recording Server service : Stops the service.
- Unregister MediaGateway : Cancel registration of the Media Gateway and initialize the Media Gateway information box.

- Recording Server can be registered and accessed in a single Media Gateway.

If the Recording Server is already registered and connected to the Media Gateway, and if you want to register in another Media Gateway, you need to delete (cancel registration) the Recording Server in the SSM.

When registration is cancelled, the Media Gateway information is initialized. So, you can register in another Media Gateway.

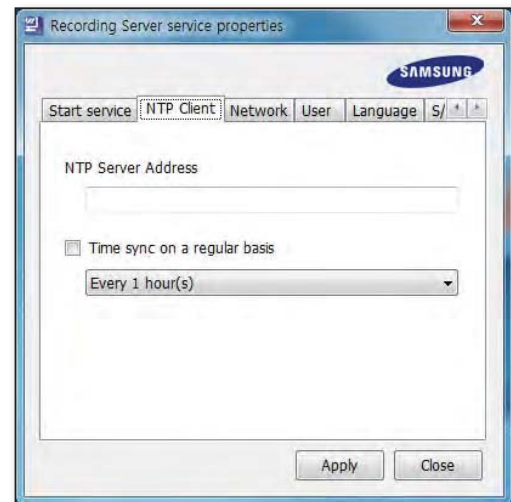
If the registered Recording Server is not connected to the Media Gateway, you need to delete the Recording Server from the SSM and click on the **[Unregister MediaGateway]** button in the Recording Server Service Manager to initialize the registered information.



# SSM Recording Server

## NTP Client

You can set the NTP server to synchronize the time of the PC where the Recording Server is installed.  
You can change the setting to make sure time synchronization is performed periodically.



## Network

You can retrieve the Recording Server setting information from a file.

### Setting the number of networks used

You can set the number of networks used.

1. Check the network to be used.
  - 1 used : Uncheck network 1 used.  
If one network is used, it means that a single network will communicate with the SSM and the device.
  - 2 used : Check network 2 used.  
If two networks are used, it means that network 1 will communicate with the SSM and network 2 will communicate with the device to evenly distribute the communication load.
2. Click on the **[Apply]** button to save changed settings.

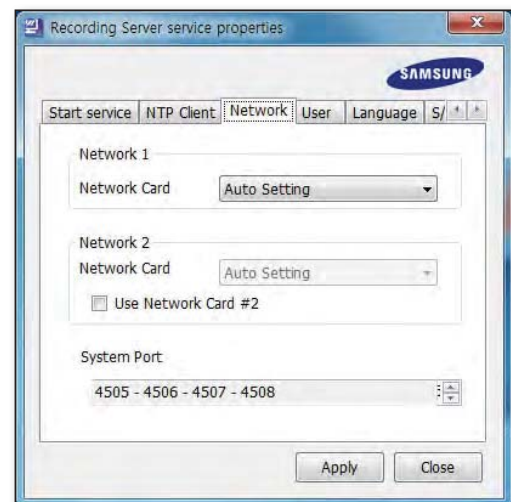
### Network selection

Select network 1/2 from the list of available networks on the PC.

- If you want to change the network setting, the Recording Server service will resume.

### Port setting

You can set the system port range that the Recording Server will use.



## User

You can change the password for a user who will access the Recording Server.

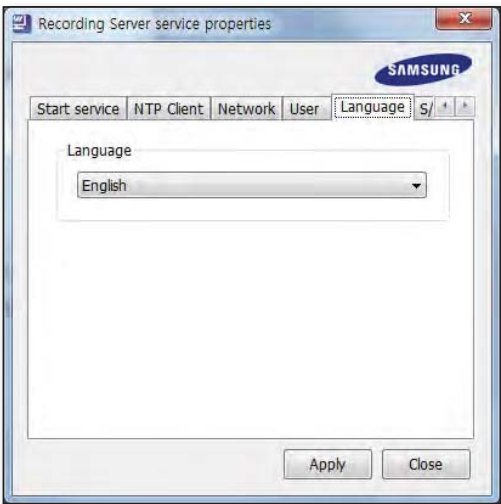
- Password changes : Click on the **[Change pwd]** button to switch to a new password.



## Language

You can select the language to display the program (SSM Recording Server service manager and update manager).

- Basically, it is automatically set to the OS language. If not available, it is set to English.



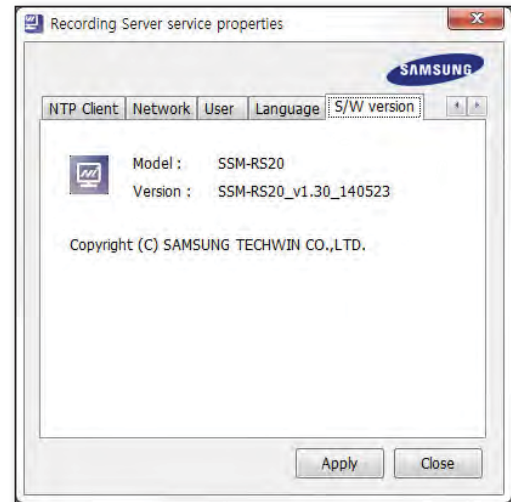
# SSM Recording Server

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## S/W version

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Shows the latest version information for the SSM Recording Server.



## RECORDING SERVER UPDATE MANAGER

### Installation

Run the SSM Recording Server installation file to install them all.

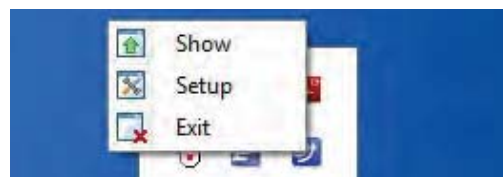
### Execute

In the Recording Server Service Manager, click on the Recording Server Update Manager <Start menu> to run the program. If the program is already running, as shown in the figure below, in the task bar you can see the tray icon of the “Recording Server Updater Manager” program.

1. Place your mouse cursor over the icon.  
The tool tip will appear on the right hand side.




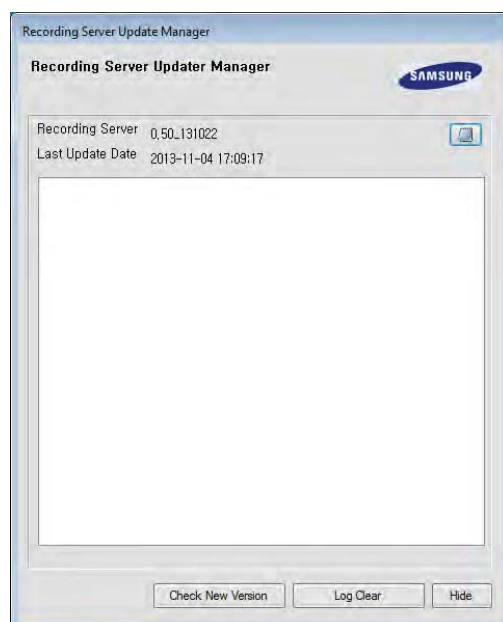
2. Right click with your mouse button on the tray icon.  
The context menu as shown on the right hand side will be displayed.



### Latest updates

Regardless of the auto check function, you can access the update server anytime to check the availability of the latest version.

1. In the [Recording Server Update Manager] tray icon, right click with your mouse button.
2. In the Context menu, select the [Unhide Window] menu.  
The Recording Server Update Manager window will appear.
3. In the “Recording Server Updater Manager” window, click on the [Check Latest Update] button.
  - 1) In this window, you can check the current version and the installation date.
  - 2) Press the [  ] button to check the release note for the current version installed.
  - 3) You can check the communication log.  
Using this log, a user can find out about the cause of failures.
  - 4) Click on the [Check New Version] button to check if there is a more recent version released than the currently used version.
  - 5) Click on the [Log Clear] button to delete the log.
  - 6) Click on the [Hide] button to make the window disappear.



# SSM Recording Server

## Setting the auto updates

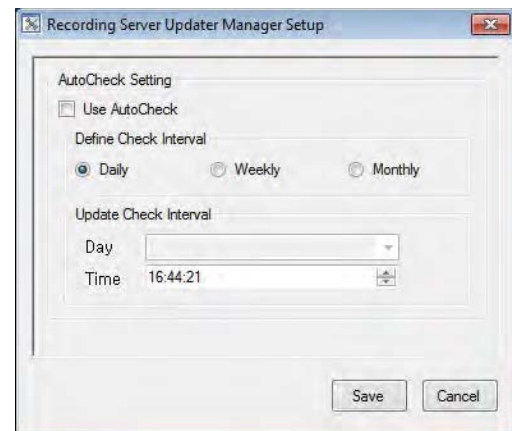
You can check the update check period for automatic checkup.

1. In the [Recording Server Update Manager] tray icon, right click with your mouse button.
2. In the Context menu, click on the [Unhide Windows] menu.
3. After changing the setting in the setting window, click on the [Save] button.

## Selecting the auto checkup period

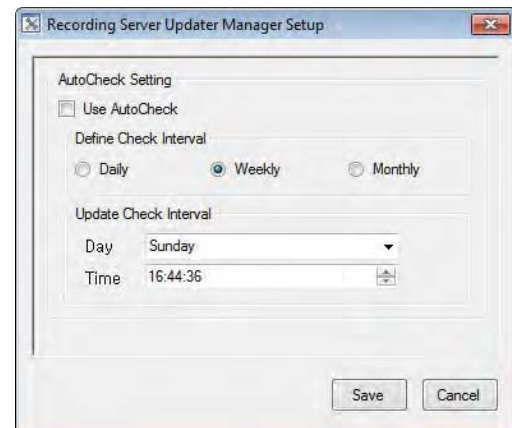
You can change the settings so that updates are checked every day.

1. Click on every day.
2. Select the auto update time.  
Ex) The figure on the right shows the settings to update at 16:44:21 AM every day.



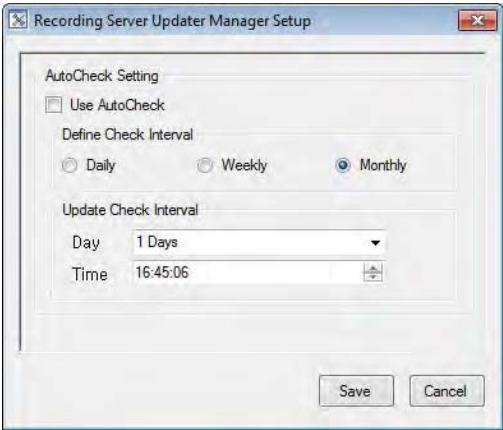
You can change the settings so that updates are checked every week.

1. Click on every week.
2. Select the auto update day.
3. Select the auto update time.  
Ex) The figure on the right shows the setting to update at 16:44:36 AM every Sunday.



You can change the setting so that updates are checked every month.

1. Click on every month.
2. Select the auto update day.
3. Select the auto update time.  
Ex) The figure on the right shows the setting to update at 16:45:06 AM on the 1st of every month.



RECORDING SERVER UPDATES

Auto Update Scenario

Latest version alerts

If the server has the latest version, the update list will appear. A user can check the release note and the content of the latest updates before deciding whether to proceed with the updates.



Download steps

If you select the [Update] button, the installation file will be downloaded.



# SSM Recording Server

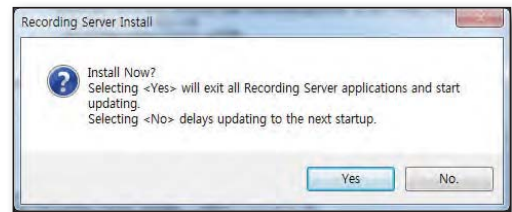
---

## Checking installation

When the download finishes, the user will be asked whether or not to install it now.

Assume a user selected **[No]**, then when the program runs again, if the latest installation file is downloaded, then as shown above, the “**Recording Server Installation Confirmation**” window will appear.

In the “**Recording Server Installation Confirmation**” window, select **[No]** and run the program. Then, the **[Recording Server Update Manager]** program will check the latest version from the server and it will download the new one in case that a later version than the current one exists in the server.



## Installation

If you select **[Yes]** in the Installation Confirmation window, all the Recording Server programs will be automatically terminated and the installation file will run.



## HA TERMINOLOGY AND INSTALLATION

### Terminology

Term	Description
<b>HA Server</b>	A server module managing the HA client. It decides the fail-over or fail-back and transfers the event to SSM.
<b>HA Client</b>	A module actually executing the HA function in each PC. A HA client can be either in Active or Standby mode.
<b>Target Service</b>	A service managed by the HA active client. * Target Service : Recording Server and SSM MediaGateway
<b>Target IP</b>	IP address to be used by the target service managed by HA
<b>Failover</b>	A procedure for a HA standby client to take over the role of the failed HA active client when a HA active client fails
<b>Failback</b>	A procedure for a failed HA active client to be recovered and resume normal operation
<b>HA Client(Active)</b>	A HA client operating in Active mode
<b>HA Client(Standby)</b>	A HA client operating in Standby mode

### HA Installation

#### Checking of Installation Environment

PC performance : Same as SSM-RS.

- The HW specification (including the number of disk drives and network cards) and OS of the active and standby clients must be the same.
- HW must be a server (Intel, Dell or HP), not a conventional PC.
- The target service for HA can operate properly if one of either MediaGateway or recording service is installed.

#### HA Installation

Install **SSM-RS\_version\_date.exe** or **SSM\_version\_date.exe**.

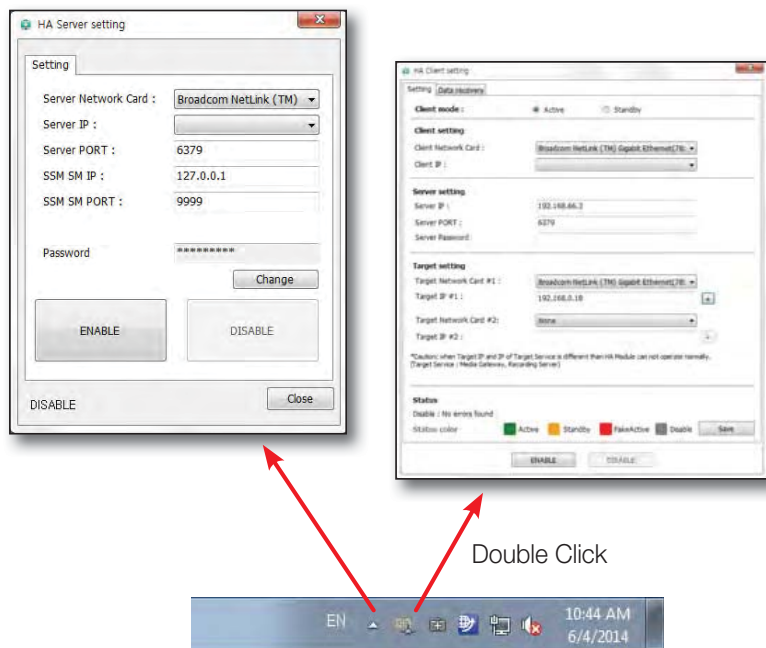
- Install the HA installer during the installation. HA server and client can be selected during the HA installation.

Manual Execution of HA Manager (Automatically Executed during Reboot)

- Start - Program - Samsung - HA - HA Manager

# SSM HA

## Checking of HA Installation

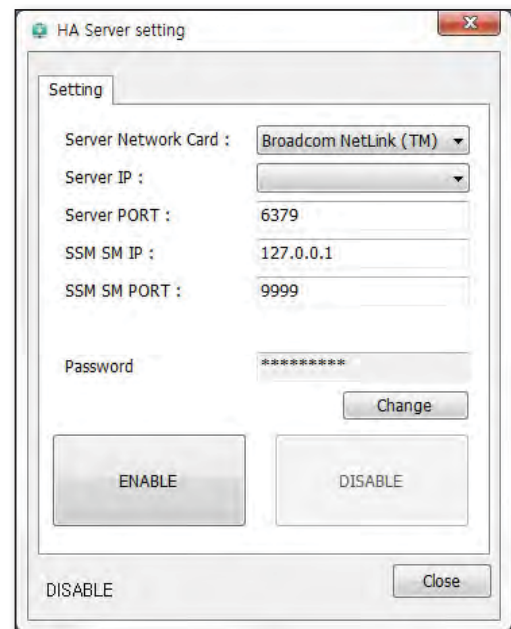


## HA Setting

### HA Server Setting

1. HA Server Setting
  - Server Network Card / IP / Port : Network connection data to operate as a HA server
  - SSM System Manager IP / Port : IP and port data to connect to the system manager
  - HA Server Password : Password for the HA clients to log in (inputted during the installation)

Click the 'Enable' button after entering all input field data of HA server.



HA Client - Active Setting

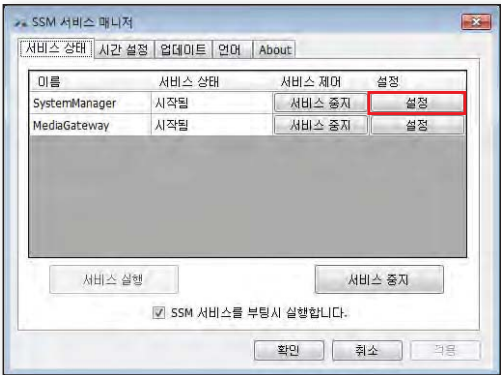
1. HA client/server network setting

Select the client NIC card and IP data of current PC.  
Input the IP, port and password of the HA server.



2. Network data input of target service (MediaGateway)

Run SSM service manager.



3. Manually enter the IP to be used by MediaGateway in NIC #1 and click the 'Apply' button. (Do not select it from the combo box.)

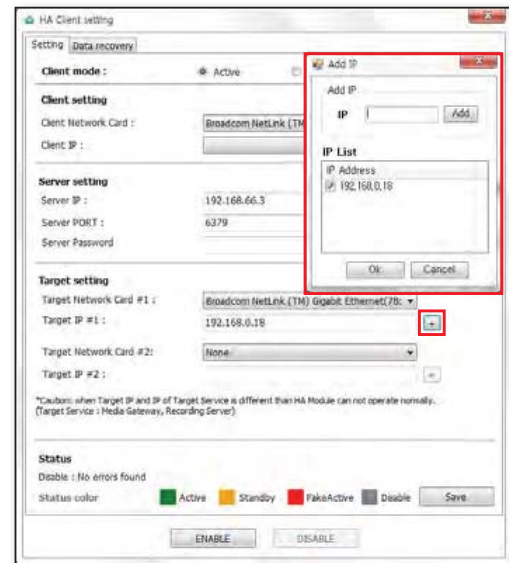


# SSM HA

## 4. HA Client Target Service IP Input

Click the [ + ] button to select or add the target IP data to be used by MediaGateway and recording server operated in the client server.

- The HA client IP, HA server IP, target IP (#1 and #2) input in the setting must all be different values.



## 5. HA Client Login

Click the 'Enable' button, wait, and confirm that the client is in the Active state.

- The password of the HA server is set during the installation.

The above screen is displayed when the HA client login procedure is successfully completed.



HA Client - Standby Setting

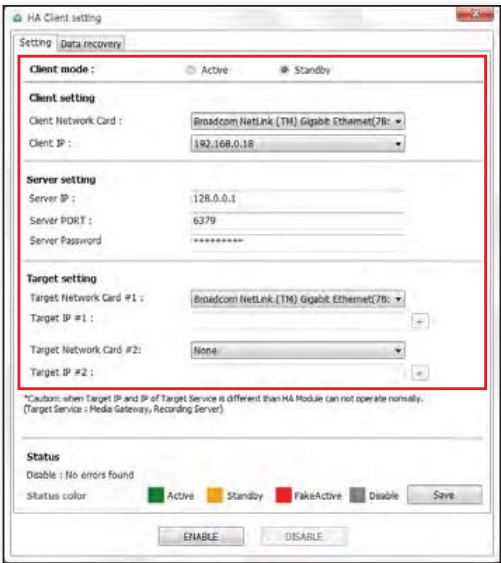
- The HA client (standby) can be configured in the same or different PC as the HA server.

HA Client Setting

1. Input the HA client data.

Select up to the target network card in the same way as the HA client (active).

After the input is completed, click the 'Enable' button and set it to the Standby state.



Recording File Recovery

Recovery UI

1. In the case of successful fail-back, if a recording file exists in the standby client, the standby client sends the recording file to the active client.
2. The user can cancel or retry the file transfer.
3. The transfer result can be checked through Log View.
  - For the recovery to begin, the restore disk (at least 2GB available space needed) for recovery must have been allocated in the SSM Configuration Manager.



# SSM HA

## HA Web Viewer

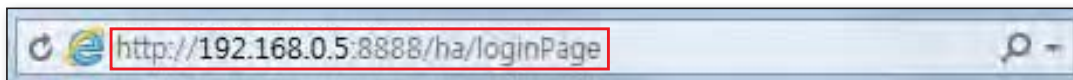
### 1. Accessing HA Web

Desktop Icon in the Local PC



- Double click the HA Web Viewer icon on the desktop.

Input the URL ([http://\(HAServerIP\):8888/ha/loginPage](http://(HAServerIP):8888/ha/loginPage)) in the address box of the browser in a remote PC.



### 2. HA Web Server Login

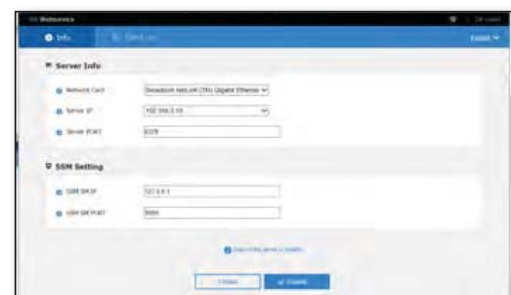
- Select a language.
- Enter the password set during the HA installation and click the 'Login' button.



### 3. HA Web Server Setting

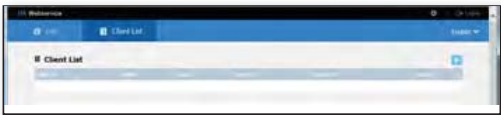
HA Server Setting and status information

- The setting of HA server in Web is the same as the above setting.



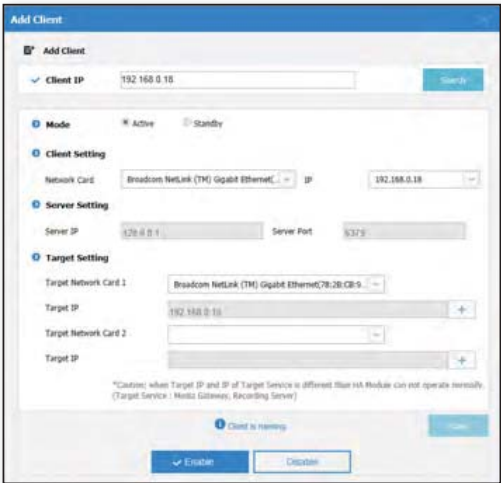
HA Client Login Information

- Click an IP address in the list to view the details of HA client.
- The data of the connected HA client are listed, and each client can be enabled or disabled.



HA Client Details

The setting of HA client in Web is the same as the above setting.



HA Status Checking (Tray Icon)

Server Status

Status	Server Icon	Description
Disable(default)		The HA server is not used.
Enable		The HA server is operating.

HA Client Status

Status	HA Client Icon	Description
Disable(default)		The HA function is not used. It can be set to use the HA function. Error status.
Active		The HA is operating as it is logged in as a HA active client.
Standby		The HA is operating as it is logged in as a HA standby client.
FakeActive		The HA standby client has taken over the role of the active client after the HA active client failed.

# appendix

## PRODUCT SPECIFICATION

Features		
Video	Supported Video Compression Format	H.264, MPEG-4, MJPEG
	Supported resolution	Depending on the device
Audio	Supported Audio Compression Format	G.711 $\mu$ -law (PCM), G.723, G.726 (ADPCM)
	Functions	Bi-directional audio (Listen/Talk)
Live Monitoring	Multi-monitor	Up to 4 monitors (Follow the recommended system requirement)
	Screen-split mode	4:3 screen modes : 1/4/6/8/9/10/13/16/17/21/25/36/49/64 16:9 screen modes : 6/12/20/30 Full screen mode * While in multi-monitor environment, layouts and split modes for less than 100 channels will be available.
	Sequence mode	up to 16-splits per monitor
	PTZ Control	Area Zoom, Go to 1x zoom, PTZ Sensitivity, Focus, Zoom, Patrol, Swing/Autopan, Group/Scan, Trace/Pattern, Preset, Iris control
	Map monitoring	Split View Mode for Map Layout, Zoom in/out, video popup(Instant viewer), Camera/Sensor/Alarm Out icons on the map
	Simple Recording	Recording of the selected video tile during 1 hour
	Functions	OSD On/Off, Snapshot / Prints Image, Brightness/Contrast control, Keep Aspect Ratio/Original size, Deinterlacing, Flip, Digital zoom
Search & Playback	Search mode	Date, Event, Smart Search, POS Search based on DVR, NVR, Local folder
	Screen-split mode	Up to 16 footages can be played simultaneously
	Video Control	Start/stop, Pause, Faster/Slower forward/backward, Step Forward/Backward, Skip Forward/Backward
	Functions	Snapshot / Prints Image, Digital zoom
	Backup	Local storage, back up format(AVI, SEC) Configurable schedule for backup (*supported model only)



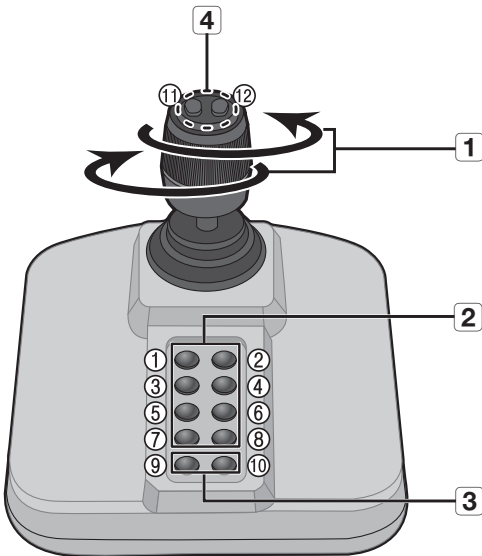
Features		
Event Monitoring	Real-time event list	Shows real-time event list of the device(event status, type, device, user, time(PC)), Viewing instant video image
	Searching events	<ul style="list-style-type: none"> <li>- SSM : User, System</li> <li>- Device : System, Camera, Sensor, Alarm Out</li> <li>- Camera : Video Loss, Motion, Passing, Entering, Exiting, Disappearing (Appearing), Tampering, Tracking, Face Detection, Audio Detection</li> </ul>
	Reporting	Manual report (show events and statistics) print & Save function, format(excel, PDF, word)
	Confirming	set alarm details Normal/Abnormal/Etc, confirm action
	History	the confirmed details of the selected event from the list
	Instant Viewer	Display the selecting camera. Confirm the event, record event remarks and end the event status.
	Instant Player	Plays the corresponding camera's video image
	Event Action	Define various system actions (output) for events (input) from devices, action (output) types: Instant Viewer, Preset, Alarm Out, Pop-up, Sound and E-mail notification
Configuration		
Site/User management		Site/User group/User account management, Permission management for viewer functions
Device management		Automatic device IP scanning, Viewing the device settings(Device webpage), Exporting/Importing devices settings, Updating the device firmware
Screen management	Layouts	Setting/Adding/Deleting Layouts, Map/Video Layout
	Monitor	Multi Monitor, Split Screen, Sequence, Using I-Frame, Using low-resolution
Environment		OSD display, Date/Time, Capture, Recording, Sartup, Language, UI auto lock, Log
System settings		Backup/Restore SSM setups, Restore the devault settings
Time synchronization		NTP Server, Client
Update		Automatic self upgrade(Connection to Samsung upgrade server)
General		
Supported devices		Samsung's N/W Camera, Encoder, DVR/NVR
Maximum number of Media Gateways per system		Default 4 Media Gateway
Maximum number of Free NET-i ware/Recording Server per system		1 NET-i ware/Recording Server

# appendix

Configuration		
Maximum number of cameras per Media Gateway		N/W Camera 72channels or DVR/NVR 288channels(36)
Maximum number of clients per Media Gateway		5 Clients
Modules		System Manager, Media Gateway, Console, Service Manager, Configuration Manager
Language		Total 23 languages support English, French, German, Spanish, Italian, Russian, Chinese, Japanese, Korean, Turkish, Polish, Czech, Serbian, Romanian, Portuguese, Dutch, Croatian, Hungarian, Greek , Swedish, Danish, Finnish, Norwegian, Bulgarian
System Requirement	Recommended	<ul style="list-style-type: none"> <li>- System manger, media gateway and console : CPU Intel Core i7-4770 @ 3.40GHz, RAM 8GB or more, Video Memory 1024MB or more (Geforce GTX560 GPU), 20GB or more available space in HDD (10GB or more available space to save the log DB for operation after installation)</li> <li>- Recording Server : CPU Intel Core i7-4770 @ 3.40GHz, RAM 8GB, SSD (for OS disk), 4 or more HDD SATA 7200rpm 64MB (for recording disk)</li> <li>* RAID specification : RAID5, 8Bay, HW RAID controller (AF support), Windows Server 2012 64bit</li> <li>* iSCSI specification : Including RAID specification above, NIC bandwidth 2G or higher, 2 or more NIC's (NIC Teaming)</li> </ul>
	Minimum	<ul style="list-style-type: none"> <li>- System manger, media gateway and console : CPU Intel Core i5-4670 @ 3.40GHz, RAM 4GB or more, Video Memory 512MB or more (Geforce GT240), 20GB or more available space in HDD (10GB or more available space to save the log DB for operation after installation)</li> <li>- Recording Server : CPU Intel Core i5-4670 @ 3.40GHz, RAM 8GB, 2 or more HDD SATA2 7200rpm 64MB (1 OS disk and 1 or more recording disks)</li> <li>* RAID specification : RAID5, 8Bay, HW RAID controller (AF support), Windows Server 2012 64bit</li> <li>* iSCSI specification : Including RAID specification above, NIC bandwidth 2G or higher, 2 or more NIC's (NIC Teaming)</li> </ul>
	Operating System	<ul style="list-style-type: none"> <li>- Console : Windows7 32bit/64bit, Windows8 32bit/64bit or Windows8.1 32bit/64bit</li> <li>- System manager and media gateway : Windows7 32bit/64bit, Windows8 32bit/64bit, Windows8.1 32bit/64bit, Windows Server 2008 R2 64bit or Windows Server 2012 32bit/64bit</li> <li>- Recording Server : Windows Server 2008 R2, Windows Server 2012, Windows 7, Windows 8 or Windows 8.1</li> <li>* 32, 64bit support</li> <li>* Windows XP SP2, Windows Server 2003 SP2 and Windows Server 2008 R1 are supported only by SSM-RS 1.0.</li> </ul>

USE JOYSTICK

- The SPC-2000 joystick is operated as follows:
- SPC-2000 must be connected to the PC before the console is launched in order to be recognized.
  - SPC-2000 can run in PTZ or Screen mode.
  - In Screen mode, the layouts assigned to the console are numbered 1~8 in the order of assignment.



Name		Function
1	Up/Down/Left/Right	In PTZ mode, the camera can be panned, tilted, and controlled in 8 directions. In Screen mode, the top/bottom/left/right tile can be selected.
	Rotation	In PTZ mode, the screen is zoomed in when it is rotated clockwise and zoomed out when it is rotated counterclockwise.
2	1 ~ 8	In PTZ mode, presets number 1~9 are run. In Screen mode, the layout corresponding to the button number is run.
3	9~10	PTZ mode and Screen mode are switched.
4	11, 12	In PTZ mode, Focus Near/Far operation is run. In Screen mode, multiple monitors can be selected and changed.

- 
- To set the correct image, the axis calibration is needed.

Select **[Start]** → **[Set]** → **[Control Panel]** → **[Game Controller]** → **[Property]** → **[Set]** via the PC, click the **[Compensation]** button to run the “**System Compensation Wizard**” and then follow the guide on the screen to complete axis compensation.

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- **MIT License** : dotNetInstaller: setup bootstrapper for Windows, Rapidxml-1.13, MicroPlanet Gravity, Newtonsoft.Json, WPF Composites, jQuery UI, jquery-i18n-properties, Newtonsoft.Json, cellcloud, gsoapwinhttp, jQuery JavaScript Library, AngularJS, datejs-rails, django-frontend-skeleton, farserver, flashcanvas, flot, Flotr2, Font-Awesome, gibberish-aes, jasmine.js, javascriptRRD, jGenUI, jQuery JavaScript Library, jQuery UI - jquery/jquery-ui on GitHub, jqueryui.com, magixcms, moment, ng-grid, require-expose-plugin
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- **EPL 1.0** : Eclipse Project, Eclipse Equinox, org.eclipse.osgi, osgi-vaadin-demo, groovy-eclipse, rhf-competitions
- **CDDL 1.1** : GlassFish, JSR-311 - JAX-RS - The Java API for RESTful Web Services (Jersey), jersey-bundle, browser-detect
- **Code Project Open 1.02 License** : Code Project - AlphaBlendTextBox - A transparent/translucent textbox for .NET, Code Project - Animating Windows Forms, Code Project - BarTender - Group your contents, Code Project - Cabinet File (\*.CAB) Compression and Extraction, Code Project - Data Encryption/Decryption using RijndaelManaged and PasswordDeriveByt, Code Project - How to skin scrollbars for Panels, in C#, Code Project - Simple Movie Database in C# using Microsoft Access, Code Project - Windows Management Instrumentation (WMI) Implementation, Code Project - WPF TreeListView Control, Code Project - Creating an XML file based on XSD, Code Project - A reusable, high performance, socket server class - Part 1, Code Project - Install Windows Service using Custom Action
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- Newtonsoft.Json (2007, James Newton-King)
- AngularJS (2010-2012 Google, Inc. <http://angularjs.org>)
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- Font-Awesome (Dave Gandy)
- gibberish-aes (2008, Mark Percival - <http://mpercival.com>)
- jasmine.js (2008-2014 Pivotal Labs)
- javascriptRRD (2012, Krzysztof Urbas [@krzysu](mailto:@krzysu) [[myviews.pl](http://myviews.pl)])
- jGenUI (2008 Paul Bakaus ([ui.jquery.com](http://ui.jquery.com)))
- cellcloud (2009-2012, Cell Cloud Team - [cellcloudproject@gmail.com](mailto:cellcloudproject@gmail.com))
- gsoapwinhttp (2011, Daniel Rozsar)

- jQuery v1.10.2 (2005, 2013 jQuery Foundation, Inc. | [jquery.org/license](http://jquery.org/license))
- jQuery v1.7.1 ([jquery.com](http://jquery.com) | [jquery.org/license](http://jquery.org/license))
- jQuery JavaScript Library v2.0.3 (2005, 2013 jQuery Foundation, Inc. and other contributors)
- jQuery UI (2013 jQuery Foundation)
- jQuery JavaScript Library v1.9.1 (2005, 2012 jQuery Foundation, Inc)
- magixcms (HTML5 Shiv v3.7.0 | @afarkas @jdalton @jon\_neal @rem)
- ng-grid (2012 the AngularUI Team, <http://angular-ui.github.com>)
- RequireJS (2010-2012, The Dojo Foundation All Rights Reserved)

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Samsung Techwin R&D Center, 6, Pangyo-ro 319beon-gil, Bundang-gu, Songnam-si, Gyeonggi-do 463-400, Korea  
TEL : +82-70-7147-8740~60 FAX : +82-31-8018-3745

### **SAMSUNG TECHWIN AMERICA Inc.**

100 Challenger Rd. Suite 700 Ridgefield Park, NJ 07660  
Toll Free : +1-877-213-1222 Direct : +1-201-325-6920  
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[www.samsungcctvusa.com](http://www.samsungcctvusa.com)

### **SAMSUNG TECHWIN EUROPE LTD.**

Samsung House, 1000 Hillswood Drive, Hillswood Business  
Park Chertsey, Surrey, UNITED KINGDOM KT16 0PS  
TEL : +44-1932-45-5300 FAX : +44-1932-45-5325

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